RECRUITMENT PROCESS AND INTERVIEW EXPERIENCE

Interviewee Testimonials

Placement Season 2017-2018 First Semester



Foreword

Dear Students,

It gives us immense pleasure to present the PU Chronicles for the placement season 2017-18. The document aims to provide you with a wealth of information that would help you to make important decisions related to your placements and academics.

This document has been curated by compiling the interview experiences from students who cleared the interview rounds and were placed in the companies that visited campus in 2017-18 Sem 1. This is by no means an exhaustive document enlisting all the students placed or all companies that visited. The information here is from the student's perspective and thus can be very resourceful to students as they gear up for the processes yet to come. We urge you to get in touch with us directly to clarify doubts, and also write to us at <u>pu.bitspilani@gmail.com</u> in case you notice any glaring errors. We will ensure that a rectification notice is sent at the earliest.

A word of caution. Placements is an extremely volatile area, and changes based on a number of factors such as market conditions, recruiter relationships and business constraints. Please read through the document with the awareness that the trend for a certain year may not be the trend for the next year. Hence, a streams that did not do well in a particular year may well be the best placed in the following year. The rounds and processes conducted by a company in the previous semester may very well differ this semester.

Hence, prepare hard, be optimistic, and rest assured that the Placement Unit is always there for you!

All the Best, Placement Team, Pilani Campus



Table of Contents

Sector - IT

Oracle : Applications Engineer - Applications Development Group

- Akshay R (2013B3A&543P)
- Harsh Sinha (2013B2A3838P)
- Hrithik Piyush(2014A8PS474P)
- Jay Jodiwal (2014ABPS676P)
- Anjana Asok (2013A3A7244P)
- Indrajeet Mishra (2014A7PS110P)
- Jay Kadam(2016H112164P)
- Maaz Mombasawala (2014A7PS051P)
- Neeraj Varshney (2014A7PS103P)
- Kartikeya Gupta (2016H112153P)
- Vivek Nimbarmunde (2016H112166P)
- Kartikey Shahi (2014A3PS275P)

Oracle : Member of Technical Staff - Oracle Server Technologies

- Saksham Kumar (2016H1030081P)
- Anirudh Venu (2013B5A3355P)
- Abhishek Singh (2016H103079P)
- Aastha Sanghi(2016H112159P)
- Ishan Sharma (2013B3A7789P)
- Pankaj Kumar Agarwal (2014ABPS834P)
- Mihir Sharad Saxena (2014A7PS098P)
- Akshit Johry (2014A7PS077P)

Uber : Software Engineer

Akul Sareen (2013B4A7743P)

Goldman Sachs : Strats Analyst

Sanjog Yadav (2014A7PS041P)



- Gaurang Bansal (2014A7PS128P)
- Chirag Agarwal (2014A7PS033P)
- Sagnik Majumder (2014A8PS464P)
- Ayush Sawarni (2014A3PS253P)

D.E. Shaw & Co. : Member Technical Staff

- Lakshit Bhutani (2014A7PS095P)
- Mayank Agarwal (2014A7PS111P)
- Arjun Dabra (2013B4A7716P)

App Dynamics

- Hiresh Gupta (2014A7PS163P)
- Priyanshu Arora(2013B4A7601P)

Microsoft IDC : Machine Learning Research Engineer

Shavak Agarwal (2014A7PS076P)

Microsoft IDC : Software Engineer

- Kirti Singh Rathore (2016H103070P)
- Anshul Chhabra (2013B2A7803P)
- Abhinav Gupta (2014A7PS335P)
- Paritosh Verma (2014A7PS018P)
- Gunjan Goel (2016H103068P)
- Shivam Gupta (2014A7PS066P)
- Pranjal Gupta (2013B4A7470P)
- Geeta Bansal (2013B1A3862P)

Amazon : Software Development Engineer

- Mihir Sharad Saxena (2014A7PS098P)
- Deepanshu Gupta (2013B2A7850P)



Akshit Johry (2014A7PS077P)

DirectI : Platform Engineer

- Akshit Chopra (2014A7PS0035)
- Siddharth Agarwal (2014A7PS025P)

Samsung Bangalore : Research

- Anish Shah (2013B1A7856P)
- Rishabh Joshi (2014A7PS102P)
- Siddharth Kannan (2014A3PS219P)
- Deep Vyas (2014A7PS248P)
- Nikita Sahasrabuddhe (2014A8PS447P)

Nutanix : Member of Technical Staff

- Shivam Gupta (2014A7PS066P)
- Priyanshu Arora(2013B4A7601P)

Myntra : Associate

- Tarun Bedi (2014A8PS446P)
- Loveperteek Singh (2013B3A7496P)

Paypal : Software Engineer

- Pulkit Gupta (2014A7PS157P)
- Hardik Gupta (2013B3A3435P)
- Mallikarjun Swamy (2014A7PS032P)

Cisco : Software Engineer

- Aditi Tomar (2013B3A7755P)
- Vishal Maheshwari (2016H103082P)
- Vineeth Reddy Yarram (2016H112172P)

Oyo Rooms: Software Engineer - Technology



- Rahul Agrawal (2014A8PS701P)
- Abhishek Teotia (2014A7PS145P)
- Vishal Arya (2014A7PS073P)
- Shubham Bansal (2016H112157P)
- Daivik Nema (2014A7PS023P)

Tesco HSC : Associate Software Development Engineer

- Arjav Nag (2013B5A7664P)
- Nikhil Verma (2014A3PS200P)
- Gaurav Sharma (2016H103075P)
- Divya Anand Sinha (2014A8PS448P)
- Surbhi Dang (2013B3A7603P)
- Subhash Kumar Samota (2014A7PS060P)
- Vandit Arvindbhai Thakkar (2013B4A7616P)

Zendrive : Software Development Engineer ,Data Scientist

- Ketan Chandak (2013B4A7582P)
- Manesh Narayan K (2013B1A7542P)

Societe Generale : Senior Software Engineer

- Prakhar Srivastav (2014A8PS450P)
- Devraj Palit (2013B4A3765P)

SmartPrix : Software Developer

- Anand Maurya (2013B5A7635P)
- *

MarketFront : Software Development Engineer

Aparajita (2016H112165P)

CITI Bank : Analyst Program , Tech Analyst/Software Developer, Software Engineer



- Mandar Waman Khapekar (2014A3PS271P)
- Anand Mahadevan SS (2014A3PS172P)
- Sharvari Deshmukh (2013A8PS460P)
- Vinayak Awasthi (2013B3A3658P)
- Subham Kumar (2014A7PS121P)
- Raunaq Nandy Majumdar (2014A8PS396P)
- Kavisha Agrawal (2014A1PS673P)
- Sarthak Jain (2014A3PS274P)
- AISHWARYA SHARMA (2013B2A4416P)
- Aakash Juneja (2013B3A1549P)
- Ashutosh Madhusudan Nemani (2014A1PS0536P)

JP Morgan Chase : Technology Analyst

- Vema Teja Krishna (2014A3PS166P)
- Siddharth Gupta (2014A3PS178P)
- Sidharth Talwar (2014A3PS237P)
- Shashank R(2014A3PS171P)
- Shubham Gupta(2014A3PS303P)

MathWorks : Technical Support Engineer – Engineering Development Group

Saumya Goel (2016H112160P)

Sling Media : Software Engineer

Kush Agarwal (2014A8PS419P)

Toshiba Embedded Software : Associate Software Engineer

- Sarita Sharma (2016H112163P)
- Lakshit Agrawal (2013B4A3744P)

Deutsche Bank : Graduate Analyst - Technology

- Yogini Naik (2016H1030067P)
- Devamalya Hazra (2016H112169P)
- Koushik Bose (2016H112162P)
- Bhavna Rana (2016H112171P)



WIPRO : Project Engineer

- Rishabh Agarwal (2013B5A3780P)
- Arnab Mitra (2014A1PS671P)
- Aseem Sindwani (2014A4PS312P)
- Harsh Srivastava (2014A2PS769P)
- Hardik Mittal (2013B2A3026P)

CGI Group : Associate Software Engineer

Vishwajeet Singh Bhadoria(2016H103073P)

Sector: ET

Texas Instruments: Embedded software engineer

- Rahul Singla (2014A3PS236P)
- Satyam Sinha (2014A3PS164P)
- Prince Goyal (2014A3PS229P)

Qualcomm: Hardware Engineer

- Tanya (2016H1400105P)
- Aditya Ukarande (2014A8PS441P)
- Eshan Tyagi (2014A8PS445P)
- Naman Gupta (2014A8PS522P)
- Supriya Aggarwal (2014A7PS013P)
- Kalpraj Vaidya (2016H123148P)
- Mayank Pandey (2014A3PS202P)
- Mithilesh Wachasunder (2016H103076P)
- Abhijith Yadav Peddiboyina (2016H123139P)
- Praveen Hooda (2016H140107P)
- Shivi Gandhi (2016H112155P)



- Sahil Chandna (2016H140101P)
- Dilna P. (2016H103083P)
- Piyush Raghav (2016H1030078P)
- Manpreet Singh Gulati(2016H112158P)
- Ayushi Jain (ME communication)
- Fiza Tariq (2016H140104P)

Intel: Component Design Engineer

- Avinash Kumar (2016H123143P)
- Arpit Singh (2016H123135P)
- Harjap Singh Saini (2016H123137P)
- Nishant Khosla (2014A8PS356P)
- Rahul Shrotey (2016H124060P)
- Mandeep (2014A3PS014P)
- Shivi Mishra (2016H1400100P)
- Vebhav (2016H123147P)
- Shivam Goel (2016H124062P)
- Aayush Gupta (2014A8PS443P)
- Megha Dixit (2016H124059P)
- Mayur Mahajan (2014A8PS412P)
- Ashutosh Kumar Singh (2016H123140P)

Cypress Semiconductors: Applications Engineer

- Abhinav Garg (2016H140103P)
- Syed Irfan (2016H140099P)

Media Tek. : ASIC Engineer, LTE Protocol Development Software Engineer



- Sanchit Agrawal (2016H140106P)
- Nandan B R (2016H140108P)
- Roshan Jayswal (2016H124056P)
- Ankit Pareek (2016H123136P)

Sector : Pharma Consultancy/ Analytics

Value Edge Research : Trainee Analyst

- Mansi Mohan Deshpande
- Shalini Dhanyakumar Patil

Sector: Mechanical

Nestle: Technical Management Trainee

- Varun Kaushik (2014A4PS780P)
- Anirudh Mittal (2014A4PS368P)

Sector: Consultancy/ Analytics

ZS Associates: Business Operations Analyst

- Shivani Taskar (2014A5PS523P)
- Swapnil Bhattacharya (2014A1PS684P)



- Akshansh Rai(2014A2PS788P)
- Shubhangi Jasoriya (2014A1PS608P)
- Harshal Gupta(2014A4PS380P)
- Niharika Agarwal (2014A1PS486P)

Exxon Mobil



Ankur Tiwari

Kinapse

Ramandeep Singh

Schneider Electric

- Rishabh Gupta (2014ABPS855P)
- Harsh Sharma (2014A4PS405P)

Sector: Banking & Finance

ICICI Bank : Mortgage Valuation Group, Management Trainee

- Anurag Agrawal (2014A2PS524P)
- Siddharth Sen (2014A4PS364P)
- Videhi Shah (2014A1PS534P)

<u>MBA</u>

Accenture Technology

- Shaik Mohammed Rabi Rashid (2016H1490240P)
- Souradip Ghosh (2016H1490247)
- Madhuri U (2016H1490207P)

KPMG

Nikita Vasudeva (2016H1490244P)

DreamVu

Shanmukha Priya C (2016H1490253P)

Cognizant

- Chaitanayam (2016H1490241P)
- Maaz Shariq (2016H1490226P) [Not selected]



Company Break-Up for Sem1-2017/18

S.N o	Name of the Company	Numbe r of Offers	Streams	CTC(Ex : 500000)	Sector
Α	Nutanix	2	Computer Science	3948600	IT
C	VISA	1	A3,A7,A8	1800000	IT



	1	1	1		1
D	Directi	3	A3,A7,A8	2655000	IT
	Microsoft	9	A3,A7,A8	2238750	IT
E	Microsoft GSMO	3	All BE	1900000	IT
F	Arcesium	2	A3,A7,A8	3500000	IT
G	Samsung Bangalore	14	A3,A7,A8	2000000	IT
н	Edgeverve	7	A7	1700000	IT
I	Samsung Delhi	8	A3,A7,A8	1900000	IT
J	Adobe	2	A7	2817197	IT
К	Cypress Semiconductors	2	Microelectronics	1495021	ЕТ
L	JSW	1	A4	1000000	MF
М	Samsung Noida	3	A3, A7, A8	1900000	IT
N	Tata Steel	3	A4	1050000	MF
0	Ecozen	1	A4	800000	MF
Р	Axis Bank	1	AB	1300000	BF
R	IQVIA	3	ME Biotech	600000	BP



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S	Inmobi	2	MBA	835000	ANA
Т	Genpact	1	MBA	650000	ANA
U	Decision Resource Group	2	M.Pharm	650000	ANA
v	Kinapse	1	M.Pharm	650000	ANA
w	Samsung HW	1	A3	2235000	ET
x	Credit Suisse	1	A1	1100000	BF
Y	DBOI	1	A1	910000	BF
Z	UST Global	1	A7	750000	IT
AA	Cisco	2	ME Comm	1596800	ЕТ
AB	Synergiz Global	1	ME Infra	385000	IF



1	Bajaj Auto	2	A4	816220	MF
2	Uber	1	A7	3627300	IT
3	DE Shaw	3	A7, A3, H112, H103	3300000	IT
4	Goldman Sachs	5	All BE, H112, H103	3150000	IT
5	Oracle BE	14	All BE	2200000	IT
	Oracle ME	6	H112, H103	2250000	IT
6	Amazon	5	A7, A3, H112, H103	2781324	IT
7	Microsoft BE	6	A3,A7,A8	2238750	IT
	Microsoft ME	2	H112, H103	2238750	IT
8	App Dynamics	1	A3,A7	2860645	IT
9	Myntra	5	A3, A7, A8	2750000	IT
10	Samsung Bangalore R&D	3	A3, A7, A8	2500000	IT
	Samsung Bangalore SDE	2	A3, A7, A8	2000000	IT
11	Nutanix	2	All BE	3948600	IT



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12	Directi	2	All BE, All ME	2655000	IT
13	Flow Traders	0	All BE, All ME		BF
14	Qualcomm BE	6	A3,A7,A8	1561065	ET
			CS, SS, Embedded,		
	Qualcomm ME	15	Micro, Comm	1776710	ЕТ
15	Texas Instruments	3	A3,A7,A8, Embed, micro, comm	1680251	ET
16	Intel BE	5	Embed, micro, comm	1227274	ET
	Intel ME	9	A3,A8	1584482	IT
17	Cisco BE	1	A3, A7	1437333	ЕТ
	Cisco ME	2	CS, SS, Comm	1596800	IT
18	Paypal	3	All BE	2510000	IT
19	Tesco	7	A3,A7,A8,H112, 103	1700000	IT
20	Оуо	9	All BE, All ME	1500000	IT
21	Market Front	2		1800000	IT



22	Zen Drive	3		1800000	IT
23	Smartprix	1		2200000	IT
24	Societe Generale	2		1751025	IT
25	Cypress Semiconductors	2	EMB/MICRO/COMM	1495021	ЕТ
26	Mediatek	4	EMB/MICRO/COMM	1200000	ET
27	Citi Bank	13	All BE	1400000	IT
28	ЈРМС	6	A3,A7,A8	1125000	IT
29	Mathworks	2	A3,A7,A8,CS,SS,EMB , MICRO, COMM	1300000	IT
30	Schneider	3	All BE	1100000	IT
31	Sling Media	1		1210000	IT
32	Toshiba BE	2	All BE	1218386	IT
33	Toshiba ME	1	All ME	1269246	ET
34	Deutsche Bank	4	A3,A7,A8,ME CS, SS	1192240	IT



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35	Sheroes	0	BE/ ME All (Women Only)	1200000	IT
36	Indus Insights	2	All BE	1100000	CO
37	Exxon Mobil	4	All BE	880000	MF
38	Value Edge	3	M.Pharm,B.Pharm	672000	BP
39	Nestle	2	A4	1102563	MF
40	ZS Associates	8	All BE	808000	со
41	Telstra	2	A3,A7,A8,ME CS, SS	1200000	IT
42	Wipro	7	All BE	900000	IT
43	App Orbit	2	ME CS, SS	1000000	IT
44	Future First	1	All BE, All ME	920000	BF
45	CGI	3	All BE, All ME	712000	IT
46	ICICI - MVG	1	A2	1300990	BF
	ICICI - MT	4	All BE	1400990	BF
47	Zemoso	3	All BE	800000	IT



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48	Kinapse	1	All BE, All ME	690960	CO
49	Teradata	2	ME CS, SS	1166000	IT
50	VMS Consultants	1	ME Structure	550000	IF
51	Honeywell	2	BE/ME Ch	700000	СН
52	Quantiphi	6	All BE	750000	ANA
53	MuSigma	3	All BE		IT
54	Axis Bank	4	All BE	1330000	BF
55	CDOT	1	ME Comm	1050000	ET
56	Education Initiative	1	All BE, All ME	800000	ОТ
57	GE India	1		875000	MF
58	Thornton Tomasetti	1	ME Civil		IF
59	L&T PGMT	1	ME Civil, Mech, Chem	600000	MF
	L&T PGET	8	ME Civil, Mech, Chem	525000	IF/N
60	Accenture	14	All MBA	850000	ОТ



	Accenture	5	All ME	809550	IT
61	SRF	0	BE Chemical	500000	СН
62	Dr Reddy's Lab	3	M.Pharm	456084	BP
63	iRunway	1	A3,A7,A8,ME CS, SS	800000	CO
64	Hero Moto Corp	2	A4	600000	MF
65	KPMG	5	All MBA	650000	ANA
66	Transorg	2	All BE	650000	ANA
67	VFS Global	4	All MBA	800000	ANA
68	Maruti Suzuki	4	BE Mechanical	650000	MF
69	India Mart	4	All MBA	800000	ОТ
70	BCG	3	All BE	1720000	со
71	Orbees	3	All BE	600000	ANA
72	Pfizer	2	M.Pharm	400000	BP
73	Rao IIT	4	All BE, All ME	700000	ОТ
74	Hyundai Motors	1	ME Mechanical, Manufacturing	650000	MF

75	IFB	2	ME Mechanical, Manufacturing	450000	MF
76	Mckinsey	1	ALL BE	1600000	со
77	KPIT	1	All BE	713791	IT
78	Cognizant	6	All MBA	900000	ОТ
79	Intas Pharma	2	ME Biotech	375000	BP
80	Lea Associates	10	ME Civil	533000	IF
81	Bombardier	2	Mechanical, Trans, Design	950000	MF
	Bombardier	1	MBA	1735000	ОТ
82	Next Education	2	All BE, All ME	700000	ОТ
83	Cholamandalam	1	All MBA	650000	ОТ
84	Infinity Research	0	All MBA	650000	ОТ
85	Client Associates	0	All MBA	750000	ОТ
86	ТТК	0	All MBA	800000	ОТ
87	Dream Vu	2	All MBA	1000000	ОТ
88	Rubique	1	All MBA	900000	ОТ



89	Holiday IQ	2	All MBA	1000000	ОТ
90	Cummins	1	ME Mechanical, Manufacturing, Design	800000	MF
			A4,AB,A1, ME Mech,		
91	Michelin	1	Manu, Design	900000	MF
92	Daikin Belgium	1	A4	34800 Euro	MF
93	Chiripal Group	1	ME Manu, Mech	600000	MF
94	L&T Technologies	1	ME Comm	1200000	IT
95	Maybank	2	MBA	1200000	BF
96	Moolchand Healthcare	1	МВА	675000	ОТ
97	Cyient	4	ME Mech, Manu, Design	500000	IT
98	Newgen Software	1	MBA	725000	IT
99	Youstart Technologies	1	MBA	650000	IT
100	Satguru Travels	0	MBA	848000	ОТ
101	Howden Insurance	0	MBA	600000	BF



102	Siemens Ltd	1	ME Mech	800000	MF
103	Indospirit	0	MBA	700000	ОТ
104	Apple	4	A3,A7,A8	2300000	IT
105	ITL	1	M.E. Civil	480000	IF
106	Ashoka Buildcon	2	M.E. Civil	500000	IF
107	Presidency University	1	All M.E.	600000	ОТ
108	Shriram Transport Finance Lim	1	MBA	500000	BF
109	Byzus	5	MBA	900000	ОТ
110	Aeques	1	M.E. Chemical	550000	СН
111	Tata Autocomp	2	M.E. Mechanical, Manu, Design	402000	MF
112	SKF	0	M.E. Mechanical	500000	MF
113	Pfizer	1	ME Biotech	350000	BP
114	William O'Neil	1	MBA	850000	BF



Sector: IT

Name: Akshay R (2013B3A7543P) Company: Oracle

Profile: Applications Engineer - Applications Development Group

- Two tests, Four rounds of interview
- First test had several sections Verbal aptitude, Numerical reasoning, Logical reasoning, Software Engineering test, Coding skills test. All of these were MCQ's.
- Second test was coding test two questions



• First interview round was a puzzle and a code on paper question.

• Second involved references to the resume, explaining the different projects. There were some database management questions, SQL queries. The logic and your approach more important than the syntax etc. And then more puzzles – three more.

• Third interview was Manager round. Again, explaining points on the resume, questions on OS, DBMS

• Fourth round was HR – Tell me about yourself, Why do you think you're fit for this role, What is your understanding of this role. Typical questions.

Sources of Preparation

GeeksforGeeks - for everything, from puzzles to coding.

Courses and Certification

DBMS is a definite favourite, many questions. Apart from this, OOP, OS and DSA are important.

Other Relevant Information

A lot boils down to how you think and approach problems and questions, as far as the interviews are concerned. Be vocal about your thinking process. Don't stare blank. Tests are easy, keep in mind the ticking timer. These interviews can be very fun! Be sure to enjoy them.

Sector: $|\mathsf{T}|$

Name: Harsh Sinha (2013B2A3838P) Company: Oracle

Profile: Applications Development Group

- Online Test
 - Sections :
 - English Grammar and Comprehension : Replace Words with similar meaning, correct grammar usage, passage comprehension
 - General Aptitude: Questions related to percentage, ratio, speed of crossing trains etc.
 - Data Analysis: Analyze data provided and answer which of the options is correct
 - Programming: Analyze flow charts and assign code chunks to different blocks
 - Core CS: DBMS, OOP, Java, C/C++, OS



- All questions were MCQs. Test was easy. However, it is important to maintain speed to finish all questions. Each section was divided into further sections. Going back to previous questions was not allowed. Every section and subsection was timed.
- Interview
 - \circ Round 1
 - Tell us about yourself, General puzzle questions, Coding questions
 - Describe your algorithm as well as write compilable code
 - o Round 2
 - General discussion about projects, Software Design questions, Puzzles.
 - Round 3
 - Logic Puzzles
 - Goals in life, Why Oracle etc.
 - Round 4 : HR
 - General Discussion

Sources of Preparation

- Study about Oracle
- GeeksforGeeks tag:Oracle

Courses and Certification

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• DBMS, OOP, Java, DSA, C/C++

Other Relevant Information

- Study what Oracle actually does.
- Prepare for aptitude type questions as well as coding questions.
- Prepare for interview questions like, What are your goals, What are your strengths and weaknesses, Why join Oracle and not any other company?

Sector: IT

Name: Hrithik Piyush(2014A8PS474P) Company: Oracle

Profile: Applications Engineer

Recruitment Procedure

• One test of 2 hours, containing MCQs from aptitude, reasoning, coding and computer science subjects (DBMS, OS, OOP, Networks)



- Another test of 2 hours containing 2 coding questions. Coding questions were pretty straight forward, one on string manipulation and another on graphs
- First question was to check if we can partition a number C into two parts such that one part is divisible by A and the other part is divisible by B, where A and B were given to us, C <=10¹⁸
- Second question was on DFS: Given an arbitrary tree with each node having a cost C_i for traversing that node, and a budget B was given to us. We had to find that how many leaf nodes can we visit from the root node without spending more than B units while traversing a path to a leaf node. Note: Each leaf node had a constraint of B units, and not the entire graph
- 3 Technical Rounds, 1 HR Round
- Technical Round 1:
 - o http://www.geeksforgeeks.org/convert-number-to-words
 - Asked a similar question to <u>http://www.programcreek.com/2012/12/leetcode-regular-expression-</u> <u>matching-in-java/</u> with few more constraints, interviewer was satisfied after few lines of code and the basic approach to handle most of the cases
- Technical Round 2:
 - Interviewer asked about myself and then said that this round would be mostly based on puzzles
 - He skimmed through my resume and asked me a design problem since I had done a course on Information Retrieval
 - He asked me to design a system which would take surveys from across India and take the problems of users into account and devise a way to focus on the most relevant problems
 - He then asked me a set of 5-6 puzzles out of which I was able to answer 3-4 and almost came up with the correct approach for one of the puzzles
 - Puzzles were standard, the approach can be developed by solving 10-15 puzzles of different types
- Technical Round 3:
 - This was the manager round and this round was mostly based on theoretical knowledge
 - An Electronics student could expect basic questions on Amplifiers, Circuit Theory, Microprocessors, Computer Architecture, etc were asked
 - A CS student could expect basic questions on Computer Networks, DAA, Operating Systems & OOP



- HR Round:
 - Basic HR questions like Family Background, Future plans, etc

Sources of Preparation

• InterviewBit, GeeksForGeeks, Coding Interview Questions by Narasimha Karumanchi

Courses and Certification

• DSA, OS, OOP for most of the part of the process

Other Relevant Information

• Practice writing code on paper, they expect full code on paper

Sector: IT

Name: Jay Jodiwal (2014ABPS676P) Company: Oracle

Profile: Applications Engineer

- Aptitude / coding based / CS theory based 2 hour test on oracle's online platform. Pretty easy but exhaustive and strict timing for every section (Around 15 sections / subsections were there).
- Coding round: 2 questions. One easy and second moderate. Interface wasn't very supportive. Copy/paste not allowed. Most of the students were shortlisted for the next round based on above two.
- First technical round: 6 questions asked. 2 puzzles and 4 coding based. Coding based were from backtracking, recursion and strings. Questions were easy, provided you don't freak out. They don't expect complete code but they require corner cases to handled properly.
- Second technical round: This round was mostly puzzles and about algorithmic thinking. Involved discussion on project (I made an app as a project, he literally downloaded it in front of me). But interviewer was very helpful and at regular intervals intervened and was solving questions along with me.
- Third technical / 4th HR round: Most people had a decent level of 3rd technical round. But mine technical round was like a HR round. Asked about family, Higher studies plan, siblings. Asked a couple of questions but they were trivial. Then had an official HR round



with cliched HR questions. No need to prepare specifically. Just keep calm and answer wisely.

Sources of Preparation

I did InterviewBit and geeksforgeeks. Prepare as if you are seeing the question in front of an interviewer. Also have a good hands on with coding. You won't get method or library help in their coding rounds and timing is crucial there.

Courses and Certification

No course or certification is necessary. If you answer the relevant question, interviewer considers that you have ample knowledge regarding the particular course.

Other Relevant Information

Just keep calm and think. I saw many people freaking out and getting rejected in first round itself. Just keep interacting and if you are not able to think of a solution, tell him the approach. Don't answer randomly and say frankly if you don't know the solution (in case of theory based direct question otherwise give it a shot and tell him the approach). Practice writing code using pen and paper.

Good Luck !!

Sector: IT

Name: Anjana Asok (2013A3A7244P) Company: Oracle

Profile: Applications Developer

- Online Test, 3 Technical Rounds, HR
- Test had sections with MCQs on aptitude, logical reasoning, outputs and correct codes for C/C++ programs. The test was easy. However, it is important to maintain speed to finish all questions.
- Interview : First round of the technical interview was entirely DSA-based and a few puzzles. The second round involved coming up with a design for a given problem statement for building an app. He asked to optimize solutions proposed and how to integrate parts across platforms(good knowledge of searching, sorting algorithms and basic knowledge of DBMS required). The third round was an HR-cum-technical round with the manager and was focused on my first discipline electronics with a question on a BJT-based circuit analysis and a few puzzles.. The final HR round was focused on plans for MS, why Oracle, and relocation issues etc.



• Solving the puzzle/ having a logical approach to it is very important for selection. Also they don't care much about the answer as about the thought process..so walk the interviewer through what you are thinking and ask for clarifications if necessary.

Sources of Preparation

You can look at Geeksforgeeks for last minute revisions on OS, DBMS etc. Also searching for logical puzzles can be helpful.

Courses and Certification

Good knowledge of DSA, DBMS and OS. Course material is more than enough. P.S: You don't need to do competitive coding and still can make it through. (my case ④

Other Relevant Information

Attend the PPT and pay attention. One of my 3rd round questions was what did I like about the PPT and what I thought was lacking in it. The interviewers were really nice and helpful, and so, just keep a cool head throughout the process \bigcirc

Sector: IT

Name: Indrajeet Mishra (2014A7PS110P) Company: Oracle

Profile: Applications Engineer - Applications Development Group

Recruitment Procedure

- **Round 1:** Mainly a general aptitude test with some basic coding skill based question. It contains computer science section in which they ask oop, dbms(very tough for me at least). Since there is no negative marking, try to mark all the questions. You need not any special preparation for this round.
- **Round 2:** It is coding round. There will be two questions of easy difficulty level. However, you need to be careful in implementation.
- Interviews: There will be three technical rounds and one H-R round. They will ask some random puzzles also. Try to answer with confidence. They look at your approach mainly and do not look confused at any point.

Sources of Preparation :

Interviewbit, geeksforgeeks.

Courses and Certification



OOP, DBMS, Computer Networks. Other Relevant Information

Doing competitive coding helps a lot in placements, so, try to enjoy it until you get placed from college.

Sector: IT

Name: Jay Kadam(2016H112164P) Company: Oracle

Profile: Applications Engineer - Applications Development Group

Recruitment Procedure:

Test 1	Online Test	MCQs
Test 2	Online Test	Coding Questions -2
Technical Round 1		Code on paper
Technical Round 2		System Design, Resume details, Puzzles
Technical Round 3	Managerial Round	Behavioral, Puzzles, Resume details
HR		Offer details, Relocation, Role Details

Test 1: Online Test

It consisted of questions from all possible areas I could have imagined (Quant, LR, Verbal, OS, DB, CN, C, Java, DS, Algorithms, Flowcharts, Pattern recognition etc.). All questions were MCQs. Each section was timed separately. You need to be speedy to solve all the questions accurately and have patience to complete this test, as it lasts for good 2-2.5 hrs.

Test 2: Online Test

2 coding Questions were to be solved in 60 minutes. Speed is important. One question involved tree construction and traversal (Path sum variation) and the other one involved BIGINTERGER mathematics.

Technical Round 1: Writing code on paper

I was given 4 questions and asked to write code on paper. No hints or help from the interviewers. First question from DP. Second question was 'Count and say'. Third question was 'Sorted permutation rank'. Fourth one was easy for me- 'Print matrix in spiral Order'.

Technical Round 2: Everything possible was asked, Longest round



The interviewer was the finest person I have ever met in any interview. He was a technical manager with around 11 years of experience. I was asked regarding everything I had mentioned on my resume, all the extracurricular activities I have done till now, my 3 years stint at Infosys, project details, some puzzles, system design questions, data warehouse related questions, Advanced SQL queries(lead, lag, top N – all questions were indirect), distributed computing concepts(scaling, h/w requirements, limitations etc.), Java concepts, challenges faced during my stint at Infosys, the code that I wrote last night in the TEST 2 and a little bit of machine learning.

I left no question unanswered. He seemed impressed by the time interview was over and told me that I did good at the interview.

Technical Round 3: Managerial Round

Again, a very senior but very humble person interviewed me. He asked me to tell my 2 achievements and 2 regrets in life, then he went on to ask me details from my resume. I had a lot of projects from ML, DM, Cloud Computing and 3 years of work experience in Data warehousing mentioned on my resume. I had also worked as TA for DW and main lab instructor for on campus DM course, hence he gave me a dataset and asked how would I apply regression on it. I explained him the process, then he asked about increasing accuracy of the results and conversation escalated into advance ML (Concepts such as imbalanced datasets, normalization, SMOTE, ROSE, sampling, BIAS-VARIANCE, curse of high dimensionality etc.) Then he asked me to explain the uses of Bitmap index, b-tree index, which one to use when, difference and similarities between Star Schema and 3NF etc. Finally, I was asked to solve a puzzle and talk about my long-term plans.

In the end, he asked if I had any questions for him. I asked a couple of questions and then he asked me to wait for 5 minutes for HR interaction.

HR Round:

HR screened my resume, asked me about my experience at Infosys, then he explained to me the role, I was being offered, asked if I had any concerns regarding relocation, my 2 strongest personality traits etc. In the end, he asked me to explain my undergrad project.

Sources of Preparation

In the order of importance.

- 1. Leetcode.com
- 2. Interviewbit.com
- 3. GeeksforGeeks.com
- 4. OS(Godbole), CN (Lecture Slides), DB(Korth)
- 5. Everything mentioned on Resume
- 6. TIME CAT notes for aptitude
- 7. Vedic math videos Youtube.com



8. Projects in detail

Courses and Certification

- 1. Data Science Specialization Johns Hopkins University Coursera.com
- 2. Python for Data Science University of UC Coursera.com
- 3. Cloud Computing
- 4. Advanced Data Mining

Other Relevant Information

Design your resume carefully and be prepared to answer any question from resume.

No questions involved theoretical definitions of concepts, all the questions were either built around some real-life scenarios or were regarding the real-life use of the concepts, so be thorough with everything you study in your books.

Sector: IT

Name: Maaz Mombasawala (2014A7PS051P) Company: Oracle

Profile: Applications Engineer

- Online Tests, Interviews, HR
- Online Test 1 had 4 sections
 - English Proficiency This was fairly easy.
 - Aptitude This tested logic and math skill. Questions were doable but time consuming. Better to not get stuck doing the same question.
 - Coding Skills This did not test actual coding skills, but able to read code and recognize its purpose.
 - Computer Science Tested knowledge about applications and systems courses like OOP and DBS.
- Test was MCQ based and you could not go back to questions after answering. It was a test of patience, even if you found the actual questions easy.
- Online Test 2 was a coding round. Allowed languages were C,C++ and Java. It was moderately easy.
- Interview process consisted of three technical rounds which tested the following
 - Coding skills Writing pseudo-code for the given problem. Problems were moderately to easy coding questions. It is important to clarify exact requirements and write correct code.



- Project work To elaborate on what you did in projects and internships, and questions that may follow up from that.
- Puzzle Some puzzle problems. Approach is more important than arriving at the actual answer.
- Course Knowledge Questions about course content of both CDCs and relevant electives, and questions that may follow from that discussion.
- HR round consisted of telling about your personal details like hobbies and interests, your family, and whether you would be fine with relocating.

Sources of Preparation

Good coding skills are required, so good to do practice online. You should know which data structure or algorithm to apply when faced with a problem. For puzzles, just try to get an idea of how generic logic puzzles are usually solved. Revise your relevant courses.

Courses and Certification

Many questions were asked from applications and systems courses like Database Systems, Operating Systems and Data Structures and Algorithms. Studying these subjects is useful

Other Relevant Information

Good to have an idea of what would be expected of you in your job role.

Sector: IT

Name: Neeraj Varshney (2014A7PS103P) Company: Oracle

Profile: Application Development

- Online test comprising of 4 sections . Most of the candidates got through this round . Though the questions were easy but the only constraint was time. There was a specified time limit for every sub section for example , 6 minutes for a subset of 4 questions. For advice for this section is do not spend more than half a minute on any question and move on to the next one.
- Coding test: There were 2 questions, very easy. There were only 4 test cases (2 sample + 2 hidden). The test cases were also quite lenient. Some people even left the room within 25 minutes.
- Interview: 80 candidates were selected for the interviews. They were maintaining a sheet for every candidate . After every round they were updating that sheet . They were mentioning which skills they have tested and which skills ought to be tested. In the first round they asked me sort an array in which numbers are in range 1..9999. I wrote code for radix sort. Then they asked me to design google's suggestion system. I came up with the Trie approach.



- In the next round I was asked a few puzzles (standard ones) and a question of designing a recommender system.
- The interviewer was very satisfied with my approach and wished me luck for the next round.
- In the last technical round he asked me a puzzle . I answered that puzzle correctly. Then he asked me about the ppt of Oracle (What all things were discussed in the PPT). He also asked me about scalability . Then a 15 minutes discussion on scalability and its types.
- Benefits of denormalization and last question was on how to measure the computer's speed(instructions per sec).
- Last HR round was just a formality.

Sources of Preparation

The most recommended is GeeksForGeeks. Practice on InterviewBit

Sector: IT

Name: Kartikeya Gupta (2016H112153P) Company: Oracle

Profile: Application Engineer

Recruitment Procedure

Test 1: This was an aptitude test of around 2 hrs. It consisted of four parts and had subsections.

- 1. Coding Skills
- 2. General Computer Science Skills
- 3. Verbal
- 4. Quant

All the sections had predefined time allocated for them. All the section had 5-6 subsection which also had predefined time. This round was tough as you are required to solve like 10 Aptitude Questions in 12 Minutes in each subsection.

Test 2: This was a coding round of about 75 mins. It consisted of two questions. The difficulty was easy to moderate. They were:

- 1. You are given a big number (<=10¹⁸). Partition the number in two parts such that one of them is divisible by A and the other is divisible by b.
- 2. You are given a budget and you are at the root of the tree. You need to count how many leaf nodes you can visit in your budget if you have to pay particular cost at each node in the tree.

Technical Round 1: The panel consisted of two people. The interview started with a standard "Tell me about yourself". Following up, I was asked to describe my favourite project's problem description and an overall solution. It was followed by many (around 5) coding problems all

based on arrays. I was asked to write clean and runnable codes on a paper in a time limit of around 10 min for each question. Some of the coding problems are:

- 1. Write a program to do a spiral order traversal of a MxN matrix.
- 2. From all possible interpretations of an array of digits print a string of length X.
- 3. Given an array with some random numbers, arrange it in such a way that first two elements are in increasing order, next 3 in decreasing order, next 4 in increasing order and so on.
- 4. Find the rank of 31452 if 12345 is ranked 1st and 54321 is ranked last.
- 5. It ran for about 1 hr which was a sort of stress interview. All problems were discussed and checked line by line and had to even write the functions for sorting. Questions were asked like "Which sorting technique to use and why is it suitable in different cases". Solutions were expected in single traversals only and optimized solutions in first go.

Technical Round 2: I was asked to write a runnable code on paper for converting a float number to its binary string. Then he asked 2 simple puzzles:

- Given that a dog runs 45km/day in a straight line in a field. The field has an area of 900km². How long can he run in 2 days?
- Then he gave me some scenario in which cost of some stocks were increasing and decreasing in some years. I had to calculate a time in which buying those stocks was most suitable.

The questions were asked with partial information and I had to come up with solutions taking into consideration those missing pieces. He was impressed that I gave him answers that taking into consideration all possible scenarios. Then he asked me about my work that I am doing in my masters and I described him about my research project with detailed diagrams and its real-life application. He seemed satisfied with my interest areas and forwarded me to the next round. This round was about 45 mins.

Technical Round 3: Due to my good feedback from my previous two rounds this round this round ran for only about 20 mins. I was interviewed by a very senior and experienced person in cloud technologies. Initially questions were like:

- 1. Tell me about yourself.
- 2. How was the placement process till now?
- 3. What are your favourite subjects?
- 4. Why do you see yourself fit in this role (Applications Engineer profile)?
- 5. Why you chose Software Systems as your master's branch?
- 6. Give me your feedback regarding pre-placement talks.

The main thing he was interested in knowing that how much I was interested in working for company and as a cloud developer. He asked me some basics about networks regarding working of HTTP and Cookies. Lastly, I was asked a simple puzzle about how to measure 5ft from a 3ft and a 4ft sticks in one go (You can't mark or break the sticks).

HR Round: Till this time, I had a feeling that I am almost through. This round ran for about 15 min in which he asked me standard HR questions like:



- 1. Introduce yourself.
- 2. Why Oracle?
- 3. Why this role?
- 4. What are your expectations as this will be your first job?
- 5. My location preferences in between Hyderabad and Bangalore.
- 6. What are your positives and an area in which you would like to see yourself improved?
- 7. There are many more companies which are also coming to the campus like Amazon and Microsoft. So, which company would you prefer if selected and how do you compare these companies?

This round was an easy one. Just you had to justify that joining an organisation like Oracle would be a great opportunity. Also, my interest areas were matching with the profile offered, so it was easy to justify for myself. Basically, he wanted to see that how honest I was in answering these questions. This was a nice round which ended with a solid handshake and big smiles.

Sources of Preparation

- 1. InterviewBit
- 2. GeeksforGeeks Interview Experiences and most popular coding problems company wise.
- 3. Some Quant and Aptitude preparation from Geeks and Indiabix.

Courses and Certification

Cloud Computing as an elective was quite important. They were interested in the projects that I had done in this course.

Other Relevant Information

Attend the pre-placement talks and pay attention to the part in which they describe the kind of work the company is doing because they are very happy to answer if you ask them questions about these in your interviews. Always explain that project which matches the profile and build a story around it. Rest your confidence is the key and hope for the best. Cheers! :)

Sector: IT

Name: Vivek Nimbarmunde (2016H112166P) Company: Oracle Profile: Applications Engineer - Applications Development Group Recruitment Procedure



• 2 Online Tests

Objective type – 2 hours – divided into English, Aptitude, Software Engineering and Computer Science (mainly involved Operating systems, Database systems, Data structures, Computer networks etc). Each section had further multiple subsections. Fairly easy but each subsection has time limit so need to watch out for that.

Coding test – 1 hour - write code for 2 programs.

- Test was easy. However, it is important to maintain speed to finish all questions. Answer once attempted could not be reattempted. You can however skip a question and answer it later within the stipulated time period.
- Four interview rounds– 2 Technical , 1 Manager and 1 HR.
- First round 3 problems were given and was supposed to code and explain the code. Gave roughly 10 minutes for each problem.
- Second round This round was taken by a senior manager. Resume was scanned thoroughly and project details were asked. Since the profile was cloud based, they gave special attention to the projects in this area. Puzzles were also asked.
- Third round This round was taken by Vice President of Oracle Application labs. He asked about career aspirations, previous work experience, if any. He also scanned the resume and asked about projects related to machine learning and cloud computing. He also asked some puzzles which required knowledge of Probability and Permutation and Combination.
- Fourth round HR asked about my background, what I knew about Oracle and Oracle Cloud products and general questions like strengths, weaknesses, hobbies, extracurricular activities, preference for job location.

Sources of Preparation

GeeksforGeeks.org for preparation of theoretical subjects for first round and coding questions.

Standard puzzles – can be referred from InterviewBit.

Projects – need to be prepared thoroughly.

Coding practice can be done on InterviewBit or HackerRank.

Other Relevant Information

Very important to prepare projects mentioned in the resume, especially the ones which are closely related to the profile for which you are interviewing.

Always try to understand the question completely. Ask multiple times if not fully clear. If you are not able to solve a given problem, ask for hints or mention your approach to them so that they can help you.



Most of the candidates were filtered in first and second round.

Sector: IT

Name: Kartikey Shahi (2014A3PS275P)

Company: Oracle

Profile: Application Developer

Recruitment Procedure:

Round 1: Online Aptitude test with 3-4 sections each having 4-5 sub sections with individual time limit for each subsection.

Round 2: Online coding round. One hour- 2 questions. Just 2 sample cases and 2 hidden cases checked. The platform used for the test not very good.

• About 60 students shortlisted for interviews.

Interview Round one: Very basic, Easy and rather irritating questions for which they want you to write a code on paper (Which they take time to understand).

Interview Round 2: Most students get eliminated in this round. Brief information about projects and then 2 puzzles. You need to get both correct to get through to the next round.

Puzzle one: You have 5 jars with infinite candies with 4 of them containing a candies that weigh 10g while one contains 9g candies. You are provided with a Electronic Weighing Machine, Find in a single weigh, the jar that contains the 9g candies.

Puzzle two: There are 4 jars out of which 3 are good and one is poisonous, using 2 subjects willing to die, find the poisonous jar.

Round 3: Discussion about anything you like. For some it was on machine learning, some people were asked about ADVD, Microprocessors. They sometimes force a topic on you even if you don't wish to. I refused to answer questions on Electronics so he asked me my strongest course and asked me questions on finance.

Round 4: HR round, just a formality, Nothing of value asked.

Sources of Preparation

Any CAT preparation book or some relevant notes for Aptitude and general coding practice.

Courses and Certification

Just basic coding practice through GeeksforGeeks, Interviewbit etc.

Other Relevant Information



Prepare your Introduction well and be ready to face questions like why do you wish to join, what qualities do you bring to the firm etc.

Sector: IT

Name: Saksham Kumar (2016H1030081P) Company: Oracle Server Technologies

Profile: Software Developer (MTS-Server Technologies)

Recruitment Procedure

• The drive started with two online tests conducted for everyone. CGPA cutoff for applying was 7.

Test 1: The first test consisted of four sections corresponding to Quantitative Aptitude, Logical Reasoning, Computer Science (C, OS, DBMS, etc), and Software Engineering Aptitude (Having two case studies and following questions). All sections had a certain time limit.

Tip: Practice enough to increase speed of Aptitude. Some good sources are Books by Arun Sharma, M. Tyra. Develop a strong basic understanding of Core CS subjects (OS, CN, DBMS, DS and Algorithms).

Test 2: The second online test was a one hour coding round with two problems: Problem 1: Given a tree and an integer sum, find the path (starting from root, ending at a leaf) which has the minimum depth. Approach: use recursion (modified inorder traversal). Problem 2: Given a very large number N as a string and two numbers n1 and n2, find a split point where if we split N into two parts, they will be divisible by n1 and n2. If p1 is first part and p2 is second part then either p1%n1 == 0 and p2%n2 ==0 OR p1%n2 == 0 and p2 % n1 == 0.

Approach: Do a single linear pass for all positions and test the conditions.

Tip: There is no substitute of practice here. Start from platforms like InterviewBit, and move on to HackerRank. Read content from GeeksForGeeks if you are stuck. GeeksForGeeks is wonderful source for preparation of Algorithms. However take care, since simple reading of posts will not sharpen your coding skills.

- After written roundabout 45 students were shortlisted for ST profile and 65 for App Dev profile.
- Technical Round 1:

The interviewer asked me some questions about my projects from internships. Then he asked have you done a course on Cloud computing. I told about a mini project I did on cloud. He asked questions that how would you ensure scalability, fault tolerance, etc. Then he asked some algorithm questions



1. Implement in order traversal.

2. Given a matrix of 0s and 1s where 1s signify islands. Find the number of islands. I told a DFS approach, he asked to code it. The problem is available on GeeksForGeeks.
 3. An array consists of repeating elements except one. Find that element. Approach: Hashmap. Standard statement for this is available on GeeksForGeeks.
 4. Some questions on OOP, Java.

• Technical Round 2:

The interviewer asked again about cloud, scalability and fault tolerance issues. She also asked about OS concepts. And some questions on Algorithms.

What is paging? What is segmentation? What is the problem with paging?

• Technical Round 3:

This was with a senior vice president of the company. He mainly asked about my projects. What was the most challenging part in one the projects. How were you able to tackle the issues that you faced? Tell me about a point where you almost thought that you will lose the project but somehow you did.

Some good questions with cloud computing. The profile Server Technologies is more associated to Cloud.

Given an online stream of integers find the kth minimum of the stream at any point. This is solved by min heaps.

When presented with a problem statement how would you approach towards a solution? What would be your first steps? Why oracle?

HR Round:

The HR then took a 25 minute round asking for my details, like hometown, willingness to relocate, etc.

And then usual questions: Tell me about yourself, why oracle, why should we take you, your strengths, weakness. Why would you join oracle if you have Amazon visiting with AWS. Why did you join ME right after your BTech?

Sources of Preparation

The most recommended is GeeksForGeeks. Practice on InterviewBit and HackerRank.

Courses and Certification

My elective at Cloud Computing helped me a lot.

Sector: IT

Name: Anirudh Venu (2013B5A3355P)



Company: Oracle

Profile: Oracle Server Technologies

Recruitment Procedure

- Test 1: MCQ with different sections involving Verbal, Quantitative Aptitude, Logical Reasoning, Coding (mainly DSA and DBS related questions). Important thing to note, once you submit your answer you cannot change it.
- Test 2: Coding test comprising of two questions.
- Interview Round 1: 2 DSA questions (write code on problems involving linked lists and arrays), 1 Brain Teaser.
- Interview Round 2: Singleton design pattern, Traversal in trees, maintaining frequency count of each word in a sentence (Code for everything)
- Interview Round 3: Questions regarding projects (what I found most challenging within my projects and what I did to handle the challenge), OS questions and write code for causing segmentation fault and core dump.
- Interview Round 4: HR-Behavioural questions. The most important of which was where I see myself fitting into the company given my background.

Sources of Preparation

InterviewBit, GeeksforGeeks, DSA Made Easy: Data Structures and Algorithmic Puzzles by Narasimha Karumanchi (extremely good for prepping in a short time frame)

Courses and Certification

OOP, OS.

Other Relevant Information

As cliche as this may sound, try to do as much as you can in the summer leading to placements. It really helps and a lot of people do better purely because of the time they put in during those months.

For the interviews (besides the subject matter):

- Make sure you know your projects & internships back to front. Anything that is on your resume should be defendable. You may even want to think about what you learned, what was challenging & how you handled these challenges?
- You may also want to look at questions like where you fit into the company (especially if you're from a non-computer science background), what are your strengths and work on your introduction.



Sector: IT

Name: Abhishek Singh (2016H103079P) Company: Oracle

Profile: Member of technical staff with the Server Technology group.

Recruitment Procedure

- CGPA cutoff of 7.
- Written test for 3 hours.
 - The written test had 4 sections
 - 1. Software aptitude
 - 2. Aptitude(all types)
 - 3. C/C++, data structures
 - 4. OS,DBMS,OOD(object oriented design)
 - You will have limited to finish each section. On an average there was one minute per question. So speed matters. One more thing, you can't go back to a question after you have answered it, though skipped questions can be reviewed if you have time left in the section.
- Coding round for one hour.
 - There were two coding questions

1. Given a large number say N, check if any prefix and suffix decomposition of N is divisible by A and B respectively (where A and B are integers, given as input)
2. Given a binary tree. You are at the root, and all your friends are at the leaves
The value of a nodes denote the cost you will have to pay to cross the node. You are given a budget. Compute the maximum number of friends you can visit by spending your budget on the nodes while traversing. (Also when you return from one leaf and try to reach others, you will have to pay again in the return path). Sorry for the cumbersome description, but I hope you get the point.

- Interview rounds 3 technical and 1 HR
 - Your CV is the syllabus you give them to ask you questions from. So it is a good idea to be well prepared about what you write there. The interviewer will try to connect any aspect of the project with the topics he might know. For instance, I had a project where I had developed a tree data structure, so he asked me questions about heaps and binary search tree. Know your project in and out and see how would you handle any corner case.
 - The interviewers were focused mostly on data structures, like trees, heaps, linked lists. Have a good idea about them.



- In the second round, I was asked 2 puzzles. Given a triangle, you have three ants sitting in three vertices. All of them can move in either direction. What is the probability of collision ? Generalise the answer for n ants and n sided polynomial. The second question was how would you add two numbers without using the '+' operator. (Hints given : think of logical gates and recursion)
- In the last technical round, I was asked to draw the flow chart for preparing an omelette. He wanted to check if I took care of the corner cases. Then we discussed about one of my projects, he asked me to give a practical usage of it. He asked be basic questions about networking and operating systems.
- The HR round was hardly for 5 minutes. Asked me how was I different from others, if I was willing to join any of their locations. He also asked me the different technologies Oracle was working on.Pay attention to such details in the presentation they give, there you will get the idea of all the work Oracle is doing these days.
- A very important thing to know is that the interviewer does not expect you to know beforehand the answers to the questions he will ask. He is ready to give hints as long as you can catch them and keep improving your answer. It doesn't even matter if you can't give the final correct answer. So speak whatever you are thinking and he will keep giving you hints the moment you go in the wrong direction. If you don't think loudly he won't even have a clue as to how to help you. Be mentally alert, use the hints to get closer to the correct answer. DON'T GIVE UP, even when you don't know anything about the answer, think of a suitable starting point and you will be given the hints to further your answer. They won't reject you if you don't know an answer, but they can reject you for not trying enough to solve a problem.

- For competitive coding, I solved Elements of Programming Interview. It's a brilliant book with brilliant solutions. It's available in both C++ and Java now.
- Run through geeks for geeks if you have time(it definitely gives you an added advantage). It has sections like company wise preparations/ topic wise preparations.
- Day 1 companies have great love for dynamic programming and backtracking questions. You will find at least one of these in the written rounds of most day 1 companies. So I went through many questions of dynamic programming and backtracking from geeks for geeks. If your target is day 1 doing these two topics is a must.
- Online lectures of Stanford courses
- Coursera Tim Roughgarden → Algorithm course http://theory.stanford.edu/~tim/videos.html



 Youtube lectures of Marty Stepp→great lecture on C++ , data structures, recursion and backtracking <u>https://www.youtube.com/user/martystepp/search?query=cs+106B</u>

Courses and Certification

• Had taken electives like advanced data mining and machine learning, which will offer good projects to do. These projects can become your entry pass for the companies you are sitting for.

Other Relevant Information

- As I began the preparations I had a lot of queries like, do I have to do entire geeks for geeks? Is 2 months enough for preparations ? So do one good resource end to end(Elements of programming interview, Cracking the coding interview, Interview Bit, Geeks for geeks (it's huge)etc). Two months of time is enough if EVERYDAY is utilised for preparations.
- Regularly code the questions to keep up your speed. You will have one hour and about 2 questions to solve or sometimes 1.5 hours for two question. You will need to allot time to design the algorithm, code and debug.
- Prepare these subjects well OS, CN, DBMS

Sector: IT

Name: Aastha Sanghi(2016H112159P) Company: Oracle

Profile: Member Technical Staff

Recruitment Procedure

- 2 online tests
 - o <u>First round</u>

Consist 4 major sections on quant, verbal logic, coding and technical (approx. 10-minute timer with each subsection). Only MCQ question were there.

Few MCQ's topic on the above mentioned sections are as below:

- Verbal logic: comprehension reading, grammar correction, one-word substitution.
- Coding: Binary tree and AVL tree.
- Technical: Operating System, DBMS, data structure- heap, C/C++.
- Quant: Polynomial equation, ratio, percentage, time speed distance.



o <u>Second round</u>

Two coding question:

- 1. First, given a large number n and two more large number x & y. Divide n into two parts n1 and n2 such that n1 is divisible by x and n2 by y. If cannot be divided print "NO" else print "YES".
- 2. Second, given an n-ary tree (total t nodes). For each node some cost is associated. Mary is on root node and she has to travel to her friends who are on all leaf nodes. Every time she crosses a node, she has to pay the cost associated with that node. She has a budget. Now output the number friends she will be able to visit in that budget. (Input: cost array & t-1 branches between the nodes).

F2F technical rounds

- o First Round
- 1. Construct Binary tree from given nodes and its inorder traversal (easy)
- 2. 25 horse/ 5 track puzzle (standard puzzle)
- 3. How hashmap is implemented internally and How increasing hashmap size demand can be met?(every time double the key list size as it is filled once)
- 4. Explain B-tree and B-+tree
- 5. How to find the merge point in cyclic link list and tell the real time analogy of the solution(race track analogy)
- 6. How inorder traversal can be done without recursion and its logic (using stack)

o <u>Second round</u>

- 1. What is cloud computing and what is architecture of the cloud (eucalyptus cloud architecture)?
- 2. How to optimize the model for frequent queries by users (where to attach extra database in the architecture)
- 3. What is heap & stack and how both are constructed and their functions. How heap and stack memory is used by JVM
- 4. If given an infinite stack memory, can malloc be implemented on memory stack? If no, then why? (No, heap is required because memory has to be explicitly freed whereas in stack only one pop operation is performed to erase the function call pushed into it.)
- 5. Write code for petrol pump problem (standard problem)
- 6. Write code for connected 1's in a matrix to form islands (standard graph DFS traversal problem)
- 7. Design patterns: observer, singleton and factory
- 8. Garbage collector works in JVM and its algorithm (Mark and sweep)
- 9. Multithreading in Java
 - Third round (F2F with Vice President a stress based interview)
- 1. Projects in detail



- 2. Json vs relational schema
- 3. Little endian vs big endian. Why there is need of endianness.
- 4. Code for checking a binary (0/1) string palindrome with corner cases.
- 5. Opened my 2nd round online test paper and asked the logics.
- 6. Heaven and hell gate puzzle.

HR round

- 1. Why you want to join Oracle rather than other big companies
- 2. What are the famous products of Oracle
- 3. What make you distinct from others
- 4. Why you left your last employer(I have an experience of 2 years)
- 5. Why a decision of doing a masters
- 6. What do you know about job profile offered to you.

Sources of Preparation

Coding practice is done on geeksforgeeks.org and interviewbit.com. I used my gate notes and geeksforgeeks.org for technical question preparation.

Courses and Certification

Cloud computing course helped me as first half-hour discussion was on cloud only. But not mandatory, needed is your strong basics.

Other Relevant Information

If you don't get the answer to a question immediately, speak up what is there in your mind, interviewer will help you to trace the whole path. 😳

Sector: $|\mathsf{T}|$

Name: Ishan Sharma (2013B3A7789P) Company: Oracle

Profile: Server Technology (ST)

Recruitment Procedure

The recruitment procedure is listed below:

- Online Test 1: Questions were divided in 4 sections, English, Aptitude, OS / DBS, Coding. The English questions were quite easy. Aptitude was a bit lengthy but still quite generic. Coding questions required you to read the code and find the output for the given input. Code snippets were modification of popular algorithms.
- Online Test 2: This was regular coding round, there were 2 question, both the questions were quite easy with concepts like DFS, BFS, basic string manipulation tested.
- Technical Interview 1: Knowledge of data structures was tested, with questions on trees, heap and hash table.



- Technical Interview 2: Aptitude based coding questions were asked in this round like code the algorithm to detect when one team definitely wins in football penalties.
- Technical Interview 3: Questions on DBS / OS were asked, some puzzles were also asked. Most of the round focussed on asking questions on your projects and technologies related to your project.
- HR Round: Generic HR questions like why do you wish to join? What do you think you are going to do in your job profile? What is one thing in your resume that you wished to hide from the interviewers? What is one thing in your personality you wish to change.

- OS, DBS, DAA slides.
- Geeks for geeks, Interview bit.
- If someone completes these then he / she has a very good chance at easily completing the interview process.

Courses and Certification

OS, DBS and DAA was asked in both the online test and in the interview.

Other Relevant Information

Portray a confident aura and always try to find an efficient implementation of the algorithm regardless of fact whether you know the best algorithm for the problem or not. If the interviewer is impressed by your approach he will give you points for your effort.

They are also humans trying to find people who will fit in their culture so enjoy your conversations with them, smile and do not show unnecessary nervousness.

Sector: IT

Name: Pankaj Kumar Agarwal (2014ABPS834P) Company: Oracle

Profile: Server Technology

Recruitment Procedure

- First test had many sections:
 - a. English comprehensions and grammar.
 - b. Logical Reasoning
 - c. Programming questions and questions related to operating system and database management.



- Test was easy. However, it is important to maintain speed to finish all questions. All sections were independently timed. Once answered you cannot modify your response later.
- Coding Test : Two questions were asked, both were easy.

In first three numbers were given as input (n, A, and B). n was a large number and you have to return true if n can be partitioned into two numbers such that one of the partition can be divided by A & other by B.

For second question a city in form of a tree was given a person lives on root node and all his friends lives on leaf nodes, a budget was given that the person was ready to spend to meet his each friend. Every node was taxed. You need to output number of friends he can visit.

- There were three technical rounds followed by an H.R. round.
 - a. First round had two puzzles along with two programming questions on bit manipulation.
 - b. Second round had some discussions on OOP and design patterns followed by about 8 standard algorithmic questions. Questions were on tree traversals, linked lists and string manipulation. One question of graph. Complete code was expected for all questions
 - c. Third round had questions on DSA, discussion on OOP and OS, some questions on Computer Networks. Complete code was expected. A puzzle was also asked.
 Flowchart for vending machine was asked. I made a class diagram. There was a thorough discussion on projects as well.

Sources of Preparation

Puzzles and programming questions on interviewbit.com and programming questions from geeksforgeeks.org.

Courses and Certification

No Certification was required. Judging was solely based on candidate's knowledge. Good knowledge of D.S.A, OOP, OS, DBMS and computer networks will surely help.

Other Relevant Information

Be calm and confident in what you speak. Good communication and presentation skills are also important.

Sector: IT

Name: Mihir Sharad Saxena (2014A7PS098P) Company: Oracle

Profile: Server Technological Operations

Recruitment Procedure

• Resume Shortlisting, 2 Online Tests, 3 Technical face to face Interviews, 1 HR



- Test 1 had 4 sections: Technical MCQ, Aptitude, English, one more generic round Test 2 had 2 coding questions
- Interview Questions:
 - a. Round-1 (4 Coding questions, Self introduction, 2 Resume Projects)
 - b. Round -2 (Deep knowledge of OS and OOP/DBMS (as per what you say))
 - c. Round-3 (Resume, basics of Computer Science(precedence of operators, Little Endian, etc.)
 - d. HR(Self Intro and Why do you want to join the company)

Interviewbit(extensively) and GeeksForGeeks past interview experiences of Amazon Interview Questions for Java and DBMS

Lecture Slides for Theory Subjects(OS, DBMS, OOP Concepts)

Also focus upon Computer Networks, some candidates were asked questions from it.

Sector: IT

Name: Akshit Johry (2014A7PS077P) Company: Oracle Profile: Server Tech

Recruitment Procedure:

Online Round 1:

- Test had questions on Aptitude, OS, OOP, DBMS, Data structures, Communication skills, Passage based, Observational skills. Had negative marking.
- CAN'T RETURN TO A QUESTION ONCE ATTEMPTED, TAKE CARE
- Section wise timing so take breaks and give it calmly but steadily maintaining speed

Online Round 2:

- 2 Coding questions.
- Keep calm and brute force if nothing strikes
- 1 hour for two questions, use wisely

Interview Round 1:

- Introduction about projects, detailed working for one of them
- System Design problem
- One Algorithm question(Standard problem)

Interview Round 2:



- Compiler questions (Since I had mentioned compiler project)
- Puzzle
- Algorithm Question: I couldnt code but discussed the best approach I had
- Trick C++ question: Implement addition without plus operator, used xor approach

Interview Round 3:

- Discussed project
- Friendly interview: He was asking me extracurriculars
- One simple question,
- One simple DSA question

HR

• Standard questions

Sources of Preparation:

- All questions were some minor change to an "interview bit" problem. Practice them thoroughly
- Geeks for geeks company wise archives
- Last Minute Notes Geeks for geeks for OS, OOP etc.

Other Relevant Info:

They prefer non-droppers, single degree CS very much. Study subjects because the interviews were very balanced and interviewers are knowledgeable. You don't need to be 100% right but you should be able to think what are the possibilities of a right answer. Place Oracle wisely in the order of Day 1 companies.

Sector: $|\mathsf{T}|$

Name: Akul Sareen (2013B4A7743P) Company: Uber

Profile: Software Engineer

Recruitment Procedure

- Online coding round, 3 Interviews
- Coding test had 3 questions and lasted 1.5 hours:
 - 1. Given an array of size up to 10⁵ count the number of contiguous subarrays it has such that a subarray contains at least 1 odd number



- 2. Greedy problem
- 3. Variant of Travelling Salesman Problem
- Interview 1 had 2 questions (code had to written on paper for both of them):
 - 1. Easy strings problem
 - 2. Checking if point lies in polygon
- Interview 2 had 2 questions (code had to be written on paper for both of them):
 - 1. Cloning a linked list with next and random pointers in O(1) extra space
 - 2. Merging n sorted arrays of strings into 1 sorted array of strings
- Interview 3 was conducted over Skype. The interviewer has no pre-planned questions and asks questions based on your answers to earlier questions.

My preparation was mostly done indirectly by participating in programming contests. Common problems from common topics in DSA should be prepared, I suppose.

Sector: IT

Name: Sanjog Yadav (2014A7PS041P)

Company: Goldman Sachs

Profile: Strats Analyst

Recruitment Procedure

Online Round:- The online round comprised of 5 mcqs and two coding questions. The mcqs were based on basic data structures and algorithms but a little conceptual. Marking scheme +10/-3.

Coding Question 1: - Given a string comprising of various words separated by various delimiters find the first repeating word (Case sensitive search). Marking Scheme – 15 marks (partial marks for each test case).

Coding Question 2:- Given some initial number of red,green and blue socks (>=0 and even in count). Assuming we are only allowed to pick one sock at a time, what is the maximum number of steps to get 'k' pairs. Marking Scheme – 35 marks (partial marks for each test case).

Getting mcqs right were a deciding factor to get a call for an interview because the questions were done by many people.

20 students were shortlisted after the online round.



Interview Rounds were conducted in no particular order of the topics. For example, the first guy could go into algorithms or he could go into electives and projects.

Interview Round 1:- The first interviewer came straight to my projects and asked me to choose a project which I was confident in. I chose a project involving data analysis and prediction models. He asked various questions regarding the approach I was following and also presented some tweaks in the project of his own. Then he went to algorithms and ds,

First question was trivial, Given an array find the number of subarrays with sum equal to zero.

Second question was common but with a little challenging optimization. Given a large number n and only allowed operations as making it n-1 or n/2 or n/3, find the minimum number of operations to make it equal to 1. O(n) is pretty trivial. But he straight away told me to solve it in O(1) time.

Interview Round 2:- The second interviewer first asked me some basic questions on databases and then jumped onto algorithms again.

First question was a modification of range minimum query and I proposed an approach using segment tree. Then he told me to explain how segment tree works and its applications.

Second question was on Euler Tour. He first asked what an euler tour of a tree is and asked me write a code to find the same for a general tree. The solution was basic dfs.

Third question was not on algorithms as such and wanted to see how I observe and handle edge cases in a problem. Given to Date Objects (year, month, date) find the number of days between them. He asked to write the complete pseudo code and expected me to handle every possible edge case like a leap year (No it's not checked by dividing by 4 in case you are wondering :p) and was also observing how I broke the problem in various functions to eliminate code redundancy.

Fourth Question was a puzzle, Given an array of size 10 where value at each index indicates the number of times this index is occurring in the array. Find the elements of the array.

Then he asked me if I had any questions. Don't ask questions just for the sake of asking and repeat same questions to all interviewers. They share their feedback with each other.

Interview Round 3:- Some basic technical questions were asked in the beginning. We discussed about the past internships I had.

After that he started presenting me with some real life situations and how I would handle them. Answer everything carefully as this is the round which shook me the most. The



questions are somewhat linked with each other and It can be a downside if you contradict yourself at any point. Then he explained the various roles people have at Goldman sachs. This was predominantly an interactive session.

Interview Round 4:- This round had the <u>System Design Problem</u>. Very helpful if you have seen one before.

He asked me to design a bus reservation platform like Redbus. He started with basic specifications and added complicated features on the go. I had to manage every information in efficient data structures so as to answer every query presented by the application efficiently. Graphs ,bitmasks,hashing were some of the areas I went into while designing the system. This problem took about 20 mins to solve.

After these rounds were done, there was an interactive session with a panel guy and we discussed about the areas in GS (he explained before.) I was interested in.

We were finally done for the day.

Sources of Preparation

www.interviewbit.com

www.geeksforgeeks.com

The above mentioned platforms should be done thoroughly. This is more than enough but giving contests on codeforces and other CP sites is an added advantage as you will get a feel of competing with a timer on your head.

Courses and Certification

Data Structures and Algorithms is an absolute must. Databases and machine learning are a plus.

Other Relevant Information

They started analysing you from various perspectives before you even know it. So be smart and try to be yourself throughout the interview.

Sector: IT

Name: Gaurang Bansal (2014A7PS128P)

Company: Goldman Sachs



Profile: Strat Analyst

Recruitment Procedure

- Online Test, Interview Rounds
- Online Test had 2 sections (75 min):
 - a. Multiple choice Questions (5)[+10/-3]
 - b. 2 Coding Questions(35 + 15)
- Test was easy and one had sufficient time to complete the problem if one could crack the logic to solve it. During Interview you must know what approach and what answer you gave in test and why. They have a copy of your test.
- Interview I:
 - a. Are you nervous? Have you ever had bad interview experience?
 - b. Given a natural number n, what is the least number of moves you need to reduce it to 11? Valid moves are:
 - 1. subtract 1
 - 2. divide by 2
 - 3. divide by 3

Give the approach first and the program.

- c. Given an array, print all sub arrays in the array which has sum 0.
- d. Any Questions for me?
- Interview II:
 - a. Tell us about yourself?
 - b. Programming question from online Test. What other approaches can be applied to solve the same problem given if you can use extra memory? if a dark contains a red socks, b blue socks, and c white socks, how many must you pull out to have exactly N pair?(Find Maximum Number, given a,b,c are even)
 - c. Snake and Ladder Problem. Given a snake and ladder board, find the minimum number of dice throws required to reach the destination or last cell from source or 1st cell. Basically, the player has total control over outcome of dice throw and wants to find out minimum number of throws required to reach last cell?. Tell first the approach, time complexity and then write code
 - d. N Queens Problem. The N Queen is the problem of placing N chess queens on an N×N chessboard so that no two queens attack each other
 - e. What do you know about Goldman Sachs? Why Goldman Sachs?
 - f. Do you find yourself capable enough of working in Goldman Sachs?
- Interview III:
 - a. Tell us about yourself?
 - b. What would you do if in group you are only the person who putting all effort on the project?



- c. What do you know about Goldman Sachs? Why Goldman Sachs?
- d. If choice is given to select from all the companies you have taken test which company would you prefer and why?
- e. What work would you like to do in the company? Say that job profile is not available, then?
- f. Any Questions for me?
- Must be familiar with Data Structure and Algorithms, have strong grasp over different approaches to solve the problem. You can practice dynamic programming and backtracking problems.

Geeks for geeks and Interview Bit are good links for practicing sufficient problems.

Courses and Certification

Must have good grasp over either Algorithms Design, Dynamic Programming, Back Tracking or Machine Learning if that is your domain.

Other Relevant Information

You need to be able to convince the recruiter why you wish to join that particular organization and not work in some other firm. Why you are the best option for them.

Sector: IT

Name: Chirag Agarwal (2014A7PS033P)

Company: Goldman Sachs

Profile: Strat Analysts

Recruitment Procedure

- Resume Shortlisting, Online Test, 3 rounds of technical interviews, HR interview.
- Test was easy. 2 coding questions-15 marks+35 marks. 5 MCQ questions(+10,-3). MCQ questions were mainly based on Data Structures and Algorithms and were slightly tricky.
- Technical Round 1- Mainly algo questions. Have to answer quickly, interviewer won't wait for long and move on to the next question. Most of them were standard questions.
- Technical Round 2- Asked me my interest. I said Parallel Computing. I was asked about Distributed Systems and Map Reduce. Then he went on to ask some standard Database and Algorithm questions.
- Technical Round 3- Mainly the interviewer wanted me to explain all the projects that I had done in detail. He questioned me on why I had done things a certain way and why couldn' t they be done the way he was proposing.



• HR Round- Questions like-"Would you prefer working in a team or individually", "How would you handle the situation when 2 members of your team fall sick" were asked. Didn't have to think really hard.

Sources of Preparation

If you have done Competitive Programming, then Algo questions in any round won't trouble you. If you have not, please ensure you learn at least how to write brute force solutions and some standard Dynamic Programming solutions.(Try codeforces Div2 first, second and third questions). Geeksfor Geeks also has some of these.

Be thorough with your resume. You should be aware of every word written in it.

- Course Subjects one should remember-
- 1. Operating Systems
- 2. DBMS
- 3.00P
- 4. Computer Networking

All these are a must. Anything extra would be a bonus. Also try studying design questions from InterviewBit. Could prove to be helpful.

Not much preparation is required for the HR round. Just speak your heart out. At the same time ensure you are politically correct.

Courses and Certification

Prob stats could prove to be useful. I was asked simple questions. They could have asked tougher ones.

Other Relevant Information

Communication skills also play an important part in the interviews. Always try to look calm and composed even if you may be ready to collapse under pressure anytime.

Sector: IT

Name: Sagnik Majumder (2014A8PS464P)

Company: Goldman Sachs

Profile: Strat Analyst

Recruitment Procedure



• Online Test (5 MCQs related to Aptitude, Data Structures and Algorithms; 2 coding questions)

- Interview Questions -
- 1. 3 Technical Rounds:

i. Round 1 - 2 questions on Algos (DP) and 1 on DAG, 1 basic question on OOP (abstract class), 1 question on multithreading.

ii. Round 2 - 1 basic coding question, 1 on graph traversal (min. no. of steps in Snake and Ladder game), 1 on string search in web crawler using KMP (string search). A few questions on general aptitude, math and statistics.

iii. Round 3 - Complete ML round. Was asked to implement XOR in neural nets, Questions on RBFN, decision trees, random forests and was also asked some intuitive questions on ConvNets

2. 2 HR rounds:

i. Round 1 - (a) "Tell me about yourself"

(b) "Why do you want to join GS?"

(c) Was given a few real-life situations, was asked how to react in those situations (human resource management).

(d) Was given the option of 2 profiles and was asked my preference.

And if I don't get my preferred profile, will I be able to fit into the other one? ii. Round 2(very short) - Was asked again about my profile preference and if I would

prefer Bangalore or Mumbai though we had the only option getting posted in Bangalore.

Sources of Preparation

1. HackerEarth Codemonk, 2. Interview Bit, 3. Geeks for Geeks, 4. Resources on ML

Courses and Certification

1. OOP, 2. DSA, 3. Neural Networks, 4. Machine Learning

Other Relevant Information

Concentrate on algorithms and ML concepts.

Sector: IT

Name: Ayush Sawarni (2014A3PS253P)



Company: Goldman Sachs

Profile:

Recruitment Procedure:

- Resume Shortlisting, Online test with MCQs on CS concepts (DSA,OOP, OS) and 2 coding questions.
 - 6 Interview Rounds:
 - Rounds 1-2:
 - Coding questions along with some DSA concepts were asked.
 - Round 3:
 - The online test solutions were discussed. I was asked to give justifications for the answers that I gave for a few tricky MCQs.
 - Round 4:
 - Very generic HR questions (introduce yourself, why GS?)
 - It was then decided by the company that my profile would be more suitable for a different team and I was informed that I might have an online interview later.
 - Round 5:
 - There was an Interview mainly focused on machine learning knowledge
 - The questions involved modelling of a general real life problem into a machine learning problem.
 - Some basic concepts like gradient descent, simple linear regression, logistic regression (and the maths involved) and the use cases.
 - It is expected that the student has some knowledge of whatever ML related courses as mentioned on resume. And some intuition of feature extraction, what different kinds of ML models can be used for a particular problem.
 - Round 6:
 - This round was mainly focused on the projects mentioned.
 - One needs know his/her project inside out and questions are designed to test the knowledge of whatever tools were used in the project.

Sector: IT

Name: Lakshit Bhutani (2014A7PS095P)

Company: D.E. Shaw & Co.

Profile: Member Technical Staff

Recruitment Procedure

• Online [Coding] Round-



The test had three sections – Coding, Technical and Aptitude. It was hosted on HackerRank.

Coding round had 2 questions – time limit was 50 minutes. The first question was on basic array operations and second was based on linear dynamic programming.

Technical round had 10 questions – time limit was 20 minutes. It was based on data structures, operating systems, databases, object oriented programming and computer networks.

Aptitude round had 10 questions – time limit was 20 minutes. These were basic quant questions and some information based puzzles.

• Technical Round - 1

Asked few questions about project I did in my internship. Programming questions were – finding diameter of a tree using recursion/iterative/stack and LCA of BST, binary tree and n-ary tree. Entire code had to be written on a sheet of paper. I was also asked some basic SQL queries, OOP concepts like multiple inheritance in C++, scope resolution, polymorphism etc.

• <u>Technical Round - 2</u>

I was asked to come up with different approaches to implement auto correction of misspelled words. Programming questions were – point(s) of equilibrium when n magnets placed on a line, median of a stream of numbers, minimum knight moves from source to destination on a chess board and k smallest numbers in a stream of numbers. I was also asked a design questions to implement an interface for configuration of server, logging, authentication and database services on a machine. There was some discussion on type of work I will be interested in doing and on the projects I had done in college as well as in my internship.

HR Round

Usual HR stuff like basic introduction, what I like/dislike, my strengths/weaknesses, where I see myself in 5 years, my USP, why should DE Shaw hire me and why did I choose DE Shaw. Other things like what did I learn in my summer internship, why did I reject the PPO, what all companies I sat for before this interview and the companies I will be sitting for today. When I said I will be sitting for Goldman Sachs and Oracle as well, they gave my result immediately!

Sources of Preparation

Geeks for geeks gives you an exhaustive list of problems which are usually tricky and difficult to solve if you don't know the concept. Interview experiences on the same website gives



you insight of other selected people. Regular competitive programming experience will give you an upper hand in all companies and not just DE Shaw.

Courses and Certification

These courses are absolute must to know [for all companies in general] -

- Data Structures and Algorithms
- Object Oriented Programming
- Operating Systems
- Database Systems
- Computer Networks

Other Relevant Information

Mostly programming questions are asked from graphs (more specifically trees) and dynamic programming. The stronger these two concepts, the more are your chances to succeed irrespective of the company.

And do revise the courses well as good programmers tend to be differentiated using theory and design.

Sector: IT

Name: Mayank Agarwal (2014A7PS111P) Company: D.E. Shaw & Co.

Profile: Member Technical Staff

Recruitment Procedure

Round 1: This round was an online round conducted on Hackerrank which consisted of 2 coding questions which needed to be solved in 50 minutes. Apart from this we needed to solve 10 theory questions and 10 aptitude questions in 20 minutes each.

Round 2: (PI) This round started with a discussion on a project from my previous internship. After that I was given to solve two coding questions. He asked me to write the complete working code for one of the problems covering all edge cases. After this I was given an



Object Oriented Design problem in which we had to design an appropriate interface. Further, there were a few questions on differences between JAVA, python and c/c++.

Round 3: (PI) This round started by discussion on database. I was given a general database of students in a college. We had to find the redundancy in the database and discuss about 1NF, 2NF, 3NF and BCNF. After this, there were questions on triggers and other database concepts. I was asked to show the internal implementation of semaphores and what role do they play. After this there were a few questions on data structures and algorithms and there were questions on heaps and time complexity of various heap operations.

Round 4: (HR) This was the final round and there were general questions such as why DE Shaw, discussion on JEE rank and previous internship experiences.

Sources of Preparation

- practice.geeksforgeeks.org \rightarrow Practice questions company wise.
- Interviewbit
- OOP, DBMS, OS, Networks from slides and youtube videos (GATE Lectures)

Sector: IT

Name: Arjun Dabra (2013B4A7716P) Company: D.E. Shaw & Co.

Profile: Member - Technical

Recruitment Procedure

- C.G.P.A required >= 7.
- Online round on hackerrank contained 3 sections which were given separate time limits.
- 1. First section contained 2 algorithmic questions for which you have to write code. Time limit for this section was 50 minutes.
- Second section contained 10 Mcq's containing technical questions to check CS courses concepts. Topics covered were networks, data structures, dbms, oop and os. Mostly there were between 1/2/3 questions from each topic. Time limit for this section was 20 minutes.
- 3. Third section contained 10 mcq's covering aptitude questions. They were moderate level but required speed as there were calculations involved in every question and last 3 questions were very lengthy. Time for this section was 20 minutes.
- 4. One important thing in this test was that time left for previous section was added in next section. So if you can solve algorithmic and technical questions fast then you can save time for aptitude so that you can solve all aptitude questions.
- After online round 19 students were shortlisted for interview rounds.
- In interview there were 2 technical rounds and 1 HR round.
- Technical round 1



- 1. Introduce yourself: My personal advice, while introducing yourself do tell things you are good at and what things you regularly do and topics you like and in which you are confident. Initial part of interview may take a good direction.
- 2. Tell some good question that you have solved in some programming contest. (This was because I told them that I participate in programming contest).
- 3. Questions asked: -
 - 1) Use of extern keyword.
 - 2) Different stages of program execution. Basically his idea was that after telling all stages of program execution(like lexer, parser, semantic analyzer, code generation, linkage) he asked at which stage extern variable resolution is done.
 - 3) Given some dependencies like A extern variable depends on B extern variable which depends on some other and so on. Find if resolution of extern variables is possible or not. If possible find the order. First told the algo then was asked to write the code. While writing code i used #define var so asked me what it is and at what stage its resolution is done during program execution.
 - 4) Destructor in C++. Virtual constructor in C++.
 - 5) Basic oop concepts like inheritance, runtime polymorphism.
 - 6) 2 algorithmic questions. (one was easy and one was moderate).
 - 7) Discussion about project in intern.(It involved DBMS).
 - Asked to write 2 sql queries. (One question was based on using group by clause and count function) (other question was based on max function and using subqueries) (there may be other ways to write queries).
 - 9) One puzzle question.

Answered correctly everything. 1/2 things I told them I don't know.

- Technical Round 2
 - 1. Design bits pilani database.(e.g make tables like students, courses etc. by making ER diagram). After designing some sql queries were asked on same design.
 - 2. Some questions related to fork(). Parent process, Child process. Kill command in unix. (this was because my resume contained project related to this).
 - 3. Questions related to input,output stream in C++. How do you think they are implemented.
 - 4. Questions related to method overloading, method overriding.
 - 5. Again asked about virtual keyword in C++.
 - 6. What is copy constructor? Whether it is there in C++/Java?
 - 7. 1 Algorithmic question.

Answered everything correctly.

- HR round
 - 1. Introduce yourself.



- 2. 2 puzzle questions asked. He gave hints we solved together.
- 3. Why do you want to join company?
- 4. Why should we hire you?
- 5. Any questions you want to ask?

- For programming you can prepare from judges like hackerrank, codeforces, geeksforgeeks etc.
- For courses I advise you to study from your course slides and just have a look at topics from geeksforgeeks for some topic which is asked and not there in your slides. Mostly questions asked are from your course curriculum.
- Study topics like OS,DBMS,OOP,Networks,Compiler.
- You can look at some puzzles also. Generally if they ask they give hints in solving them. In puzzles they just need to see how you approach.

Courses and Certification

Courses knowledge that were required were mostly CDC's.(OS,DBMS,OOP,NETWORKS,COMPILER).

Other Relevant Information

- Focus on algorithmic questions as they are required for getting you shortlisted. As if you are not shortlisted then it doesn't matter which topic you are good in.
- If algorithmic questions done revise your concepts related to your CDC's.
- Do prepare your resume.

Sector: IT

Name: Hiresh Gupta (2014A7PS163P) Company: AppDynamics

Profile: Software Engineer

Recruitment Procedure:

• Online Test: The online test comprised of ten MCQs involving some basic concepts of DSA, OS and Networks, and four coding questions on graphs (basic traversal), arrays, dynamic programming (1D) and a variant of knapsack problem. Twenty students were shortlisted for the next round.



• Technical Interview: The interview (3 rounds) was geared towards data structures & algorithms (trees, graphs and dp), OS and Networks in depth with a slight increase in complexity after each round.

Sources of Preparation

- Practice questions on interviewbit.com and geeksforgeeks.org.
- Do look up for past interview questions and interview experiences before giving any test/interview.

Courses and Certification

• DSA, OS, OOP, ML and Networks.

Sector: IT

Name: Priyanshu Arora(2013B4A7601P) Company: Appdynamics

Profile: Software Engineer

Recruitment Procedure

- Online test Of duration 1.5 hrs containing 10 MCQ questions and 4 coding questions.
- MCQ questions were easy and were based on concepts from OOP , DBMS and OS.
- The first 2 coding questions were very easy and needed a brute force solution.
- The 3rd and 4th question required a dynamic programming approach .
- In 3rd question one needed to find the longest subsequence in an array of given characters which contained the vowel sequence 'aeiou' in order. Ex- 'aerriituuouhiiie' has answer 'aeiiou', similary array has no such sequence thus answer is -1.
- In 4th question , a dynamic programming similar to subset sum problem was required to be found.
- 19 students were shortlisted . The ones who did all 4 coding questions and some of the people who did 3 but performed very good in MCQ.
- I had three interviews:
- In the first interview , I was asked to implement the stl vector in c++. The he asked me about some concepts of database sharding and indexing in dbms. Also asked to implement Dijkstra algorithm and explain its correctness.



- In the 2nd interview, The interviewer asked to mathematically prove the algorithm for finding the loop in a linked list . He didn't ask me the algorithm but just the mathematical proof of it.
- Then he asked me to find if for a given diophantine equation the solution existed or not . He expected a dynamic programming approach for the question rather than a mathematical approach. Only the existence of the solution was to be proven in O(n)
- In the 3rd interview, the interviewer asked to code a question on paper. The problem was to print all nodes which are at K distance from a given node in a binary tree. The binary tree had pointers from parent to child node but not from child to parent.
- Basically the level of questions was good and they expected a fairly good proficiency in programming language which you claim to know .

• Geeksforgeeks , InterviewBit and tutorial point for OOP and OS.

Courses and Certification

• Expected knowledge of Data Structures and Algorithms , Operating Systems , OOP and DBMS.

Other Relevant Information

• Interviewers were also interested in System Design problems

Sector: IT

Name: Shavak Agrawal (2014A7PS076P) Company: Microsoft IDC

Profile: Machine Learning Research Engineer

Recruitment Procedure

- The recruitment process for Microsoft usually consists of a Coding Test followed by a 3-4 round of interviews.
- The **coding test** is mostly comprised of 2 elementary questions (2 + 3 mks) with one difficult (5 mks) one. Mostly people who had solved all 3 questions were shortlisted. The test has multiple sets and there are 2 completely different sets of 3 questions each.
- The interview process starts off with a **Group Fly** process wherein they give 2 questions to a class of 30 people or so and ask them to solve these on pen and paper. Each group of 6 students was assigned an interviewer for this round who was there to answer any doubts



that you had. Make sure to handle all the corner cases and also ask them about the same. Around 30 people were shortlisted from 2 such groups.

- This particular profile wasn't being offered by them when they had come to campus initially and when I expressed my interest for Machine Learning in the **first round**, during which they were asking about my interests and projects, they started a separate process for the same.
- The **second round** was a telephonic/Skype round wherein I was interviewed by a Group Manager for AI and Research in India. My entire interview was based around the projects I had done as part of my internship and reasons for doing and not doing certain things. I was also given a design problem wherein he asked me to frame the problem (i.e. find the parallel to a pre-existing problem) of extracting relevant information out of a bill payment email from an email inbox.
- The **third round** was a technical round which focused on some coding problems, puzzles and some OS. The coding problem was to rotate a matrix by 90° and OS questions were centred around differences between a process and a thread.

Sources of Preparation

Solve some previous year questions on InterviewBit and also look at interview experiences on GeeksForGeeks.

Courses and Certification

You should have a strong ML profile if you hope to get this profile.

Sector: IT

Name: Kirti Singh Rathore (2016H103070P)

Company: Microsoft IDC

Profile: Software Engineering/ Research Engineering (M.L.)

Recruitment Procedure:

Online Coding Test - 3 questions: try to provide optimized solutions.

- 1. Find minimum depth for which sum of nodes from root until leaf node equal to given sum.
- 2. Find if the binary representation of given number is a palindrome or not.
- 3. Find sum of leaders in array. Leader: element which is greater than all elements to its right. Group fly 2 Coding questions, try to communicate your approach to your mentor.
- 1. Find if a 1-d char array was present in a 2-d char array. The string could be present through multiple rows and columns, like a crossword.



- 2. Find a rogue node in a BST, and correct it. Technical Interview 1
 - Sum of 2 numbers stored in a linked list. I provided an approach the interviewer liked a lot. The interview went on for around an hour.
 - Technical Interview 2
 - Find duplicates in an array. Then converted it into a scalability problem. Turned out into a very interesting discussion.

Technical Interview 3

• Quite a light interview. After some casual discussion he read my resume, and asked me to explain a project I really liked. After this I had to write code on a small section of it.

Sources of Preparation

Topics from geeksforgeeks. It almost is a complete repository.

Courses and Certification

No special courses that were required. Just need to have good coding skills.

Sector: IT

Name: Anshul Chhabra (2013B2A7803P) Company: Microsoft IDC

Profile: Software Engineer

Recruitment Procedure

1) Online Coding Test - This had 3 questions (1.5 hours)

- 1) Given n numbers , 3 numbers appear even number of times , all others appear odd number of times , Find the three numbers which appear even number of times.
- 2) Given a number , you have to check its binary representation is a palindrome or not without using extra space.
- 3) Given a number k, find the minimum depth such that root to leaf node path has this sum k. If there is no such depth return -1;

2) Group Fly round - Around 80 students were shortlisted for this round (45 mins)

- We were divided into groups of 6, Each group was assigned a mentor with whom we had to discuss the doubts and our approaches to solve the question
- We had to also write the code for both the problems



- Problem 1) Given a string, check whether it exists in a 2D matrix of characters, You can only go in right and down direction.
- Problem 2) Given a bst, there is one node which is not satisfying the binary search property . Find the bad node and then correct the bst.

3) Technical Interview 1 - After the group fly round they divided students into two lists . First list had 9 students . and second had around 20 students . In group fly round they basically check how fast you solve the problem and what kind of doubts you ask.

My technical round 1 lasted for around 1 hour . He asked me 4 questions and few questions on the resume.

Question 1) Implement a stack using linked list and array.

Question 2) was same as the problem 2 of group fly round.

Question 3) Find the maximum for each window of size k.

Questions 4) One by one number are coming as input , you have to find the kth maximum number till now.

For first two questions i had to write the complete code , For other 2 he just asked me to tell my approach.

Then he asked me few questions on my resume related to the compiler project.

4) Technical Round 2 - This round went for around 2 hours.

First problem was to design a simple calculator. Interviewer wanted to know all the test cases i will handle.

Then i was asked questions about my other two project which were on Information Retrieval.

Second Problem was - Infinite stream of characters is coming , you have to print all the meaning full words according to the english dictionary. I solved it using Trie.

I had to write the code for both the problems and simulate then on few test cases.

5) **Technical Round 3** - This lasted for just 30 mins . I was asked to explain my internship project.

And finally he gave me a puzzle to solve.

Given an array of size n, each number in array is between 0 to n-1, the array is not sorted, return the first number which is occurring twice without doing a linear scan of the array.



Interview bit and geeksforgeeks.

Courses and Certification

Data Structures and algorithms , Operating Systems , DBMS , Computer Networks , Compiler Design.

Sector: IT

Name: Abhinav Gupta (2014A7PS335P) Company: Microsoft IDC

Profile: Software Engineer

Recruitment Procedure

- Coding Round three coding questions to test your basic coding skills and algorithms. Questions are easy and can be solved with basic programming skills
- Written test two questions to be solved under an hour. The code is to be handwritten in your preferred language. Better questions than previous round. Need some experience with problem solving techniques like dynamic programming, backtracking and greedy
- Technical interviews Introduce yourself properly. Coding questions asked. Error free code is expected. Explain your thinking process properly. They ask you to trace your program for a sample input. Don't write anything on resume that you haven't revised. Questions about Networking and machine learning were asked from me.

Sources of Preparation

- Competitive programming helps. Interviewbit is a good place to start if you don't have much experience but need to clear coding rounds. Focus on the solution approach rather than mugging the solutions.
- Revise your courses and prepare something to say about anything written on your resume. Also look at company wise interview question banks on internet. A lot of questions are common for many companies. I was asked many common questions in interviews for goldman sachs, oracle and microsoft.

Learn about your preferred coding language. You can expect them to go deep in the knowledge of your coding language, available constructs, language semantics.

Courses and Certification



Operating systems, computer networks, database systems, data structures and algorithms, object oriented concepts, Machine learning and neural nets for data science profiles, competitive programming participation(asked by D E Shaw)

Other Relevant Information

There is a proper way to prepare for placements. Your cg or programming won't necessarily help you in this. Take a goal centric approach to prepare for selection process. Do things that help you specifically in clearing the interviews and coding rounds. Study your previous courses but only till they help you answer the interview questions. Do programming only till it helps you clear the coding rounds. Improve your speaking and presentation skills only till it helps you express your ideas clearly. Being a master in one of those is good but not necessary. Use sample questions to benchmark yourself.

Sector: IT

Name: Paritosh Verma (2014A7PS018P)

Company: Microsoft IDC

Profile: Software Engineer

Recruitment Procedure

Recruitment procedure was divided into 3 parts.

- 1. Online Test
- 2. Group Discussion/ Group fly
- 3. Three technical rounds
- Online Test Test had 3 programming questions which were sampled from a pool of questions for every student (as a result the difficulty of questions varied). The test was relatively easy as compared to the online test of other companies and standard algorithmic questions were asked. As a result speed became an important factor for cracking the test.
- **Group Discussion/fly** All the students selected from the test were divided into groups of 6 students each and were given two algorithmic questions and were expected to write the code for them (on paper). It was an individual task and we were not supposed to discuss anything with the group. Good quality questions that focused on fundamentals were asked in this round.
- **Technical rounds/ Interviews** Interviews were mainly focused on algorithmic questions and projects. You should also be familiar with your elective courses (the ones you have mentioned).



- 1. GeeksforGeeks/Interviewbit
- 2. DSA course material

Courses and Certification

Microsoft's interview questions are designed to test the computer science fundamentals of the student. Revising the course work is really important, especially the following courses (listed in decreasing order of importance).

- 1. DSA
- 2. Operating systems
- 3. Database systems
- 4. Computer Networks
- 5. OOP

Other Relevant Information

Last minute preparations won't work, start early . Best of Luck and Happy Placements 🙂

Sector: IT

Name: Gunjan Goel (2016H103068P) Company: Microsoft IDC

Profile: Software Engineer

Recruitment Procedure

Round 1 (Written Test): Test had 3 questions:

- 1. Calculate the sum of two integers and if the number of digits in sum equal to one of the integer then return sum else return n.
- 2. Find if a number has binary palindrome and count the number of set bits
- 3. Connect nodes at same level in a binary tree

Round 2 (Group Fly round): It was at 6:30am, so you have to make you mind work at all the time. They divided all the shortlisted students in groups of 2 and per 6 students one interviewer was assigned. It had 2 questions that need to be solved in 40 mins.

Tip: Ask various questions with you interviewer and discuss your approach. They give marks for that.



- Given a 2D array with characters you have to find whether a given string exists in the matrix or not. You can move only in left-> right or top->right direction. (Backtracking/Recursion)
- 2. Given a BST, there is a bad node that violates the property of BST. So you need to find that node and correct it.

Round 3(F2F) : The interviewer was BITS alumni 1991 pass out. He first asked me about my project every minute detail of it. Then he asked about the database structure of the project - every single table and asked me to make it better. He then asked me to write some of the SQL queries related to that database.

Data structure : Find a duplicate element in the array where the range of elements is 1 to n. I gave that negative element approach but he asked me to optimise it to less than O(n). I couldn't do that part but he then wrapped up the interview.

Round 4 (F2F) : Design Question for Token management.

He asked me to design a system where tokens are automatically generated and counters are assigned to them. E.g SBI bank/customer center. He told me to write the classes that are involved for this. The interviewer was very helping and he made me think. He really liked my approach and told me to continue with it.

Solution: I created 3 classes for the system Counter(counter_id, current_token, state) Token(Token_id) TokenManager (List<Tokens>, List<Counter>). Methods like assignCounter(), findFreeCounter() etc. were explained. He was very particular about class and method names and told me to change one or the other name. It was 1 hour 30 minutes long discussion.

In the end, he told me it was long though great discussion and it's good to have you here. :-)

Round 5(F2F) :

The interviewer was a serious guy and asked me to subtract two strings in a way that the chars in second string should be removed from the first string(in-place). Assume string to be char array.

Approach 1: Add all the chars of second string to a hashset and for every char that matches take the substring before it and after it. $O(n^2)$.

Approach 2: Queue based add all the chars that are not present into the queue and add it back to the char array. O(n) time O(n) space.

Approach 3 : He asked me to improve it further and I gave an O(n) solution using 2 pointers.

}



} arr[++j]='\0';

He was happy with my solution and then asked to discuss a design question.

He then asked me to design an order management system of MCDonalds. What are the APIs available, which are client , server and how kitchen gets to know about the new order.

And then after 5 minutes we got our results and it was really a very proud moment.

Tip : You need to have a lot of patience because interview rounds takes a lot of time. It was a 12 hours process so be calm and patient. All the best pals.....

Sector: IT

Name: Shivam Gupta (2014A7PS066P) Company: Microsoft IDC

Profile: Software Engineering

Recruitment Procedure

- **Online coding round** on microsoft's CoCubes platform. This test is comparatively simple with 3 coding questions. (Around 30-35 candidates were shortlisted.)
- **Group Fly Round** It was a knockout round wherein they gave us 2 coding questions and we had to write their solutions on a piece of paper in 45 mins.
- Given a matrix of characters, find whether a given string can be formed by traversing the matrix.
- Given a BST, one of the nodes in the BST does not follow its properties. Find that node and delete it
- 3 Technical Interviews

First Round

General discussion on my projects.

http://www.geeksforgeeks.org/reverse-words-in-a-given-string/

http://www.geeksforgeeks.org/find-the-smallest-window-in-a-stringcontaining-all-characters-of-another-string/

Second Round



This round was completely based on a single design question. Design a music player system.

Third Round

Discussion on my projects, some questions from Computer Networks, DBMS, OS scheduling algorithms, SQL query.

http://www.geeksforgeeks.org/reverse-a-list-in-groups-of-given-size/

Database design question.

Sources of Preparation

- Practice each and every question from interviewbit.
- Company specific practice from practice.geeksforgeeks.org
- Lecture slides for OOP, OS, DBMS, Computer Networks, DSA

Courses and Certification

- Be clear with your concepts in OOP, OS, DBMS, Computer Networks, DSA.
- Good understanding of design patterns is very important. One of my entire interviews was based on this.

Other Relevant Information

Go through interview experience from geeksforgeeks for the company you are sitting for at least a day before interview

Sector: $|\mathsf{T}|$

Name: : Pranjal Gupta (2013B4A7470P) Company: Microsoft IDC

Profile: Software Engineer

Recruitment Procedure

1. Online Coding Round :

Three simple Adhoc questions to be solved in 75 minutes. Emphasis is highly on optimizing the algorithm for minimum time and space complexity.

- 2. **Group Fly**: 2 coding question given to solve on paper.
 - 1. **3-dimensional DP problem :** To match a given word in a 2D-matrix of characters such that the possible movement is only to right and down.

2. BST Tree : To detect an anomaly in the tree and correct it.

3. Technical Round 1



2 easy technical questions involving recursion and array to be written in any language. Emphasis was given to improve the time and space complexity to the maximum. Interviewer asked to construct all possible cases to check the program and make required changes to handle these in the written code.

4. Technical Round 2

- The interviewer had my papers from the Group Fly round, gave me cases for which my second question was wrong and asked to correct it. I came up with several different approach and ultimately gave the correct logic for the question.
- The other question was a design problem using an Object-oriented approach to develop a token management system, wherein a token is marked with one of the given n pointers. The interviewer started with a very basic implementation, but added features to be implemented as the question progressed.
- 5. Technical Round 3

To design a Management system for McDonald's using a object oriented approach. This was architecturally more complex than the previous question.

To design all the relevant tables necessary for storing data from the above system on a cloud database.

Sources of Preparation

GeeksForGeeks, InterviewBit (everything !), SPOJ Courses and Certification OOP and DBMS Other Relevant Information

The key in all technical rounds is to keep discussing your ideas even if you are not completely sure about it. Interviewers keep the question vague, so I kept on asking things, and they appreciated that. They want to test your thinking and approach, not how much you know standard codes. The design questions easily tests that.

Sector: IT

Name: Geeta Bansal (2013B1A3862P) Company: Microsoft IDC

Profile: Software Engineer

Recruitment Procedure

1. Online test: 3 questions, need to solve all 3 of them to get shortlisted for the next round



- 2. Group fly round: 2 questions need to be solved on pen and paper, discuss your approach with the mentors allotted. Solved both the questions correctly to make it to the next round
- 3. Technical Interview 1: 2 programming questions, need to cover all the test cases. The first question was to find anagrams of a word in a newspaper article and the second question was based on linked lists. The questions weren't direct. He had given some real-life scenarios and accordingly I had to model the question and then solve.
- 4. Technical Interview 2: 1 modelling question, OS concepts (paging, threads, processes), OOP concepts, design question (design a chess game)
- 5. Interview 3: Semi-technical (OS concepts) and semi-HR

Sources of Preparation:

geeksforgeeks and Interviewbit more than sufficient.

Courses and Certification:

OOP, OS, DBMS, Computer Networks preferred

Other Relevant Information:

Do practice some design questions beforehand, OS and OOP concepts should be pretty clear

Sector: IT

Name: Mihir Sharad Saxena (2014A7PS098P) Company: Amazon

Profile: Software Engineer

Recruitment Procedure

- Resume Shortlisting, Online Coding Test, 3 Technical face to face Interviews, 1 Telephonic Interview
 - Test had 2 sections:
 - a. Technical MCQs
 - b. 2 Coding Questions
- Questions:
 - a. Round-1 (4 Coding questions, Self introduction, 1 Resume Project)
 - b. Round -2 (exactly same as above, slightly tough)
 - c. Round-3 (1 Coding questions, then questions on DBMS and OOP)
 - d. Telephonic Round(Projects Discussion, 4 real based problems to be solved using Data Structures and Algorithms)



Sources of Preparation

Interviewbit (extensively) and GeeksForGeeks past interview experiences of Amazon

Interview Questions for Java and DBMS

Sector: IT

Name: Deepanshu Gupta (2013B2A7850P) Company: Amazon Profile: Software Development Engineer

Recruitment Procedure

- **Online Test:** Several techinical questions in OS,OOP and DSA etc. Along with it there were 2 coding questions.
- Calculate how many different pallindromic partioning is possible for a string.
- Given a paragraph find the shortest interval in which a given words appear.
- Technical Round 1:
- Clone a linklist: <u>http://www.geeksforgeeks.org/a-linked-list-with-next-and-arbitpointer/</u>
- Given a tree(left child pointer and right child pointer) and a random pointer and a distance 'k'. find out how many nodes are present in this tree.
- Technical Round 2: <u>http://www.geeksforgeeks.org/given-sorted-dictionary-findprecedence-characters/</u>
- Technical Round 3: Question based on resume. 2 questions:
 - 1. Longest pallindromic subsequence.
 - 2. Longest pallindromic substring
 - Technical HR:

http://www.geeksforgeeks.org/reverse-a-list-in-groups-of-givensize/

Implement Autocomplete feature.



• Questions based on projects. Scalabilty issues, topics regarding your work.

Sources of Preparation

• Interviewbit and geeksforgeeks.

Other Relevant Information

• Amazon will mostly ask questions from dp and graphs

Sector: IT

Name: Akshit Johry (2014A7PS077P) Company: Amazon Profile: SDE I

Recruitment Procedure:

Online Round 1:

- Test had 20 MCQ questions on
- Data Structures, OS, OOP, DBMS, Networking, Maths
- 2 full length coding questions on exactly same pattern given on geeksforgeeks Amazon archives.
- The coding questions are lengthy so focus on one completely and solve at least one to get shortlisted for rounds further.

Interview Round 1:

- Introduction about projects and internships.
- One basic Strings problem- Full code to be written with dry run
- One Algorithm question(Standard DP problem) and several minor changes to original problem to see scalability- Full code to be written with dry run
- Maths based (PnC) one problem

Interview Round 2:

• Each Internship project to be explained in detail with algorithm used and aim, learnings, outcomes.



- Discussed a few projects other than the internship ones
- Algorithm Question on Trees- Full code to be written with dry run

Interview Round 3:

 Algorithm based 2 to 3 questions. Here they are very particular while asking a question since they want it to be a new problem for you. If you have solved it before, tell the interviewer before only, don't fool around with him. Don't act like you don't know a problem if you know it beforehand. The interviewer can tell the difference.

Full code and dry run again for each.

- Telephonic Interview:
 - The "Amazon bar-raiser". Google it and read about them on quora, glassdoors etc.
 - A hiring manager talks to you and gives you some problem to solve on collabedit
 - Full code is required.
 - I was asked question to design and code for a phone contact search.(I used trie)
 - Had to explain all data structures and assumptions you make and he may change the initial problem a bit and see how you can accommodate the changes in your code. So take care of scalability, reusability, readability and optimisations.

Sources of Preparation:

- Geeks for geeks company wise archives
- All questions were some minor change to an "interview bit" problem. Practice them thoroughly
- Last Minute Notes Geeks for geeks for OS, OOP etc.

Other Relevant Info:

Algorithms are the key. Be thorough in your concepts because you are likely to face a new problem and knowing the method and approach is definitely better than knowing the answer and not being able to adapt the changes. Be concept clear and know all about your projects in detail.

Sector: IT



Name: Akshit Chopra (2014A7PS0035)

Company: Directi

Profile: Platform Engineer

Recruitment Procedure

- Online Coding Round: The test comprised of 3 questions. All of them were of easy medium category. I solved all the 3. Anyone who solved 2 was shortlisted for the interviews.
- Algorithm round 1: This round consisted of 1 problem which was of adhoc category and could be solved using a bit of logic.
- Algorithm Round 2: This round consisted of a dynamic programming problem of medium category, which could be solved using a bit of brainstorming.
- Managerial Round: In this round I was asked questions on my projects, then I was given 2 problems, one of them was a based on probability and the other was based on databases (external merge sort).

Courses and Certification

Having good knowledge of Data Structures, Algorithms, Operating Systems, Database Systems and Computer Networks help.

Sector: IT

Name: Siddharth Agarwal (2014A7PS025P)

Company: Directi

Profile: Platform Engineer

Recruitment Procedure

There were four rounds:

- 1. Coding round: 3 questions, 90 minutes. The questions were fairly easy and time was not a problem. Questions were fairly standard and had been asked before in previous Directi recruitment tests.
- 2. Technical Interview round 1: There was one question based on arrays. They were not looking for the optimised algorithm and were also taking into account how you approached to the correct solution. They asked us to write the code there.



- **3.** Technical Interview round 2: Similar to the previous round, but the question was a slightly more difficult. The question was based on Dynamic Programming.
- 4. Skype Interview: Two people qualified for this round. We had an interview scheduled with technical recruiters from Directi Mumbai office. The interview lasted for almost 45 minutes and the interviewer grilled us over our resumes and asked extensively about projects. They also asked basic questions from OS, Computer Networks and Database Systems.

Sources of Preparation

- InterviewBit
- Geeks for geeks Directi experience

Courses and Certification

Nothing different. Just prepare CS theory from OOP, Database, Comp Net and OS and your resume thoroughly.

Sector: IT

Name: Anish Shah (2013B1A7856P) Company: Samsung Research Bangalore

Profile: Technical

Recruitment Procedure

- Coding test for 3 hours, long and no STL allowed, only C/C++/Java
- 2 rounds of 1 hour long technical interviews covering a wide array of computer science courses especially OS, Computer Architecture, Compilers, along with applied Machine Learning and Data Mining. Also about projects. Quite tough.
- 1 HR interview

Sources of Preparation

Interns, Coursework, Interviewbit

Courses and Certification

Operating Systems, Computer Architecture, Data Mining, Machine Learning



Name: Rishabh Joshi (2014A7PS102P)

Company: Samsung Bangalore

Profile: Research Profile

Recruitment Procedure :

- I was a PPO holder in Samsung Bangalore. PPO is only offered for the developer profile. The CG cutoff for PPO holders was 8.5 to be able to sit for the research profile interviews. PPO holders were not required to give the coding test for Samsung.
- First round of interview We discussed about my projects. Since they were heavily related to Machine Learning, and I had done courses on Information Retrieval and Neural Networks, the majority of the discussion was related to Machine Learning. The questions started from the need of ML and went on in detail describing the various activation functions of Netural Networks and when and why one should be preferred over the other. More ML and Deep Learning discussion followed. Basically you are not expected to be an expert in the field but, you should be able to talk in depth on anything related to your project or achievement. I was asked questions on HOG, CNN, Haar, etc due to my projects and competitions. The round also had a bit discussion on OS. It had standard questions from Geeks.
- Second round of interview The interview Guy was a Computer Vision person. He started grilling on CNN and neural networks in general. He also asked about Gabor filters (again that was on my resume). A little discussion about ML was followed by Computer Architecture and Networks. I must admit that I am weakest in Comp Arch and Networks. I had not prepared Carch at all, and had only seen the top questions of networks from Geeks. I really struggled in the Carch questions but could answer some Network ones. The discussion ended with some more discussion on Machine Learning.
- Third round of interview This was a small HR round. I was also sitting in the Interviews for Nutanix, which was my dream attempt (ctc > 1.75 times the PPO CTC). I had Samsung Research as my first preference in the Day 1 companies. I made it clear to the HR that I am not interested in Nutanix and the attempt was only because "I could". She asked me what would you choose if we didn't offer you research. I only reiterated that "I'll see you in Samsung next year, no matter the outcome of this process ;)." The discussion ended with me suggesting some places for her to see in the campus before she leaves. She only informed that it was a little on the positive side for me and I should wait for the final results.



Sources of Preparation

- InterviewBit for coding
- Codeforces for coding
- Geeks for Geeks for important questions
- Slides of courses for overview
- Project reports for resume prep

Courses and Certification

Courses done by me – NNFL, IR, Parallel Computing, Pattern Recognition, ML specialization (online)

Other Relevant Information

Nothing particular. Prepare well and start early. Start by 3-1 end or the winters. You'll have a head start in the 2 months summer. Don't hesitate to contact seniors for tips. Also every case is unique. I am more inclined towards research, and that has influenced a lot of my decisions like putting samsung research as the top preference, accepting the PPO, taking Nutanix lite in the last round (bombed it) (meaning I was okay with samsung R&D dev , over nutanix (if not research)) so you should go for companies according to your preferences. I would suggest go for Nutanix if you are completely into dev and are interested in Virtualization, Server, Cloud etc.

Sector: $|\mathsf{T}|$

Name: Siddharth Kannan (2014A3PS219P) Company: Samsung R&D Institute, Bangalore

Profile: Research profile

Recruitment Procedure

1. **Online Coding round:** 1 question to be solved in 3 hours. There would be total of 10 cases. In order to get to next round candidate must clear all 10 of them. Expect questions on Graph



traversals and puzzles based on these. Also questions on dynamic programming and backtracking are quite likely.

- 2. **Technical Round 1:** The first round in my case was completely project oriented. A very thorough understanding of the objective, method of implementation, application and theoretical aspects of the projects displayed on the resume is required. For example, my projects were based on convolutional neural networks. I was asked to explain the convolution process occurring in these kinds of networks. Moreover I was also asked about how much memory these networks would occupy. There was a question about how to go about constructing these networks and also about the literature review I did before choosing the method I had adopted. Apart from projects I was asked questions on topics which I had mentioned as electives in my resume. This round generally takes about 45 minutes if things are going well I suppose.
- 3. Technical round 2: This was an extremely challenging and testing round. Depending on the interviewer it may go smooth or may completely ruffle you up. Starting off about my projects, we gradually moved into designing real world applications based on my project, while integrating concepts from the courses I had done. My interests were in computer vision and I was asked to surveillance system and asked questions on how I would schedule input coming from various cameras and feed them to a CNN for processing. Basically scheduling algorithms were being tested with CNNs in the backdrop. Interviewers would dig deep into the topic in discussion and see how well you are able to incorporate concepts from the various courses you have done to solve the problem they are presenting to you. Hence, a good feel of the applications of the theory, one has learnt, is necessary. Even if it is an IT job and the candidate is from core background, she/he will be tested on the core topics. So EEE/ENI people cannot be oblivious to their disciplinary courses as the interviewers are very qualified people have knowledge of diverse disciplines from their years of experience. Hence, this round is by no means a cakewalk. Surprisingly I was not asked to code up a single question in the Technical rounds.
- 4. **HR round:** Much simpler than the previous round. If one reaches till the HR, this means that the company is quite serious about your recruitment, although you can never be a 100% sure. Typical questions can be expected like why Samsung, what are your technical interests and hobbies, background, your engineering life in short, etc. They also tell you about their confidentiality policies and patenting that Samsung is known for.

Sources of Preparation

- 1. Geeksforgeeks Samsung archives
- 2. Interviewbit
- 3. Geeksforgeeks-Operating Systems, DSA

Courses and Certification

Operating Systems, Object Oriented Programming, Discrete Structures for Comp Science.



I had not done DSA as a course but not required, knowledge of the subject would suffice. Knowledge of Comp Arch is also an asset, but I did not have knowledge of Comp Arch.

Other Relevant Information

For the research profile, a high CGPA is considered favorable to them (in the range of 9-9.5 gives you a good edge). Projects are very important for this profile and more importantly knowledge about these projects. Internships in reputed companies and universities which offer projects in cutting edge areas of research and technology are a major plus. I had internships at IISc, Bangalore and Brown University and a SOP at CEERI, Pilani. This experience is valued by them I suppose.

Sector: IT

Name: Deep Vyas (2014A7PS248P) Company: Samsung Research Institute, Bangalore

Profile: Research Engineer

Recruitment Procedure:

- Online Test, 2 Technical Rounds, HR
- Test has 1 question to be solved in 3 hours.
- Test is generally easy. Mostly the questions are based on backtracking or simple graph algorithms.
- Interviews:
 - 1. One round consisting of simple algorithm questions and a few questions on basic concepts of OS and Databases.
 - 2. Second round consists of questions on projects mentioned in resume and the corresponding topics that might arise from discussion.
- The interviewer is more concerned towards the depth of your knowledge mentioned in your resume. Be confident of all that you mention and read in-depth about your project, especially if it is in the field of Machine Learning/ Artificial Intelligence. Many questions in some way or other involve knowledge of OS, Computer Architecture. So brushing them up is beneficial.

Sources of Preparation

Practise basic backtracking problems from various online sources for the code test. Interview questions are mostly based on applying things learnt in the courses.

Courses and Certification

OS, Databases and Computer Architecture are courses to be revised for Samsung. But expect questions from all courses(CDCs) and electives mentioned in the resume.

Other Relevant Information

Try to avoid taking the interviewer in the direction of questions on topics you are not confident of. It is all about creating a positive impression on the interviewer. If you are in grasp of concepts used in your projects it goes to your advantage. Also if Machine Learning project is mentioned on your resume be sure to master it, it will give a positive edge.

Sector: IT

Name: Nikita Sahasrabuddhe (2014A8PS447P) Company: Samsung Bangalore

Profile: Software Developer

Recruitment Procedure:

- There was a coding test (majorly focused on graph traversal, DP).
- On clearing this, there were 2 technical interview rounds and finally Hr round.
- For technical interviews, focus on DSA, OS and OOP concepts.
- They review the resume in a great detail, know everything mentioned on your resume.
- Concepts in OS were asked in depth.
- Standard DSA questions on trees, backtracking, DP.

Sources of Preparation

Interviewbit, geeksforgeeks.

Courses and Certification

DSA, OS, OOP, DBMS

Other Relevant Information

Might ask a few computer architecture questions. Difficulty of test is moderate. If you are a EEE or Eni student, have a good answer for why IT sector job. (for other companies as well)

Name: Shivam Gupta (2014A7PS066P) Company: NUTANIX

Profile: Member of Technical Staff

Recruitment Procedure

- Online coding round on hackerrank platform (16 students shortlisted).
- **Group Fly Round** It was a knockout round wherein we were given 3 code snippets each having some logical errors and were expected to correct those errors in 25 mins (8 students shortlisted for further rounds).
- 3 Technical Interviews
 - a. First Round
 - i. General discussion on projects.
 - ii. One coding question Given a set of points in a plane, find the perimeter of the smallest fencing around all the points.
 - b. Second Round
 - i. This round was completely based on a single design question. Design paytm system.
 - c. Third Round
 - i. Discussion on my projects, some questions from Computer Networks, DBMS, OS scheduling algorithms, SQL query.
 - ii. http://www.geeksforgeeks.org/inplace-rotate-square-matrix-by-90-degrees/
 - iii. Asked to implement Factory method pattern.

Sources of Preparation

- Practice each and every question from interviewbit.
- Company specific practice from practice.geeksforgeeks.org
- Lecture slides for OOP, OS, DBMS, Computer Networks, DSA

Courses and Certification

- Be clear with your concepts in OOP, OS, DBMS, Computer Networks, DSA.
- Good understanding of design patterns is very important. One of my entire interviews was based on this.

Other Relevant Information

• Go through interview experience from geeksforgeeks for the company you are sitting for at least a day before interview.



Name: Priyanshu Arora(2013B4A7601P) Company: Nutanix

Profile: Member Of technical staff

Recruitment Procedure

- There was an online test ,a debugging round and 3 interview round
- The online test had 2 questions .
- First question was to find k nearest points to the origin given a set of n points on the 2D plane .Where k <=10000 and n<=10^7.Expected complexity O(nlogk).
- For the interview process 16 students were selected .
- There was a debugging round after the coding round . 3 codes were given with no explanation . Expected outputs were given and the code had to modified so as to achieve the desired output . The codes has OS related concepts in C also ex mutex and semaphores.
- 8 students were shortlisted after the debugging round for the interview process.
- In the first round an algorithmic question was asked. Given a set of villages on a map , a fence has to be made so as all the villages are covered but least wood is required to build the fence . Basically convex hull of the given points was needed to be found
- I first gave an O(n^2) solution but the interviewer required an O(nlogn) solution for convex hull.
- For the 2nd interview 2 algorithm question were asked and a design problem was asked.
- There was a 3rd interview for the once they were not sure of whether to hire or not.

Sources of Preparation

• InterviewBit, GeeksforGeeks, OOP design patterns from tutorialspoint

Courses and Certification

• No courses as such but a good grip over algorithms is needed .

Other Relevant Information

• The interviewers always ask the language you are proficient in. It does not matter on which language the company works. Its the programming proficiency they want to check .



Name: Tarun Bedi (2014A8PS446P) Company: Myntra, Bangalore Profile: Associate

Recruitment Procedure

- <u>Coding Test:</u> As the first round, there was an 2 hour online test containing 5 aptitude questions of 4 points each, and 3 coding questions of 50 points each. The overall level of the test was moderate, aptitude was pretty easy. People who solved two or more coding questions were shortlisted.
- 2. <u>Technical Interviews:</u> Three Technical Interviews were conducted for all shortlisted candidates. The interviews were heavily resume based, and the interviewer is very likely to ask in depth specific questions from your projects and internships. Two rounds were on algorithms and data structures in general, and one round was a design problem. Familiarity with DSA and Databases is vital.
- 3. <u>HR Interview:</u> They repeatedly asked questions like "Why Myntra?", "Why not MBA" questions. General questions like family background and hobbies too. Having a good knowledge of the job profile in general, and where you would fit in to add value should be enough here.

Sources of Preparation

Cracking the Coding Interview, InterviewBit. Familiarity with Databases, by a campus/online course.

Courses and Certification

Did Databases as an elective in my 3-2. Prior experience in Android development also helped a bit.

Other Relevant Information

Myntra's process, unlike most processes, really try to understand your thinking process and how you approach a problem, rather than theoretical knowledge from courses. Just be thorough with DSA/Database basics, and have a crystal clear idea of your resume.



Name: Loveperteek Singh (2013B3A7496P)

Company: Myntra

Profile: Software Engineer (Jr. Data Scientist)

Recruitment Procedure

- Online Coding Test (Moderate level).
- Three technical Interviews
 - 1. All three had mix of questions from Data Structures, Algorithms, Database Systems and a significant portion from Machine Learning.
 - 2. Questions ranged from easy to tough in terms of difficulty.
 - 3. Focus on projects was less and internships even lesser.
 - 4. Most of the time they checked command over subject knowledge.
 - 5. A mix of theoretical and practical questions was asked.
 - One HR interview
 - 1. Asked about family background, yourself and what do you really want yourself to be and why join Myntra.

Sources of Preparation

Most of my preparation for interviews was done during the revision of courses (which we do on campus) in my summer vacations.

Courses and Certification

I had done two online courses on Machine Learning and was in touch with current prevalent practices of machine learning. I think that helped me a lot.

Other Relevant Information

Be fully thorough with basic ML Algorithms and general DSA. Do some good ML projects.

Sector: IT



Name: Pulkit Gupta (2014A7PS157P)

Company: PayPal

Profile: Software Engineer

Recruitment Procedure

- Online Round comprising 10 MCQ type questions based on Database/Operating Systems/Data Structures and one programming question with partial credits.(Duration : 75 mins)
- 2. Interview 1: A basic question on Kadane Algorithm followed by a design question. The design question asked about possible data structures that could be used to store information about customers and warehouse location and how one could find the nearest warehouse to a customer having desired inventory (Talk about node structure and Dijkstra).(Duration : 40 mins)
- 3. *Interview 2*: Cliched questions as in a) find next permutation with same sequence of digits b) delete a node in a linked list where only pointer to the node to be deleted is given. Followed by an informal discussion on one of the projects.(Duration : 25 mins)
- 4. *Interview 3*: They asked some H.R.-ish kind of questions as to why I wished to join the company, what is the course of action if I didn't like the work etc. This was followed by an in-depth discussion on one of the projects. A design problem followed about designing a parking lot. Again focus was on appropriate data-structures to satisfy the use case and respective trade-offs.(Duration : 75 mins)
- 5. *H.R. Round*: Informal chat on company tenets and willingness to join.(Duration : 10 mins)

Sources of Preparation

Decent foundation in Competitive Programming is helpful to clear online round and Data Structures pertaining questions. Lecture notes of DBMS, OS, Networks are enough for technical questions. GeeksforGeeks and InterviewBit are useful for cliched questions

Courses and Certification

Breeze through lecture slides and notes of DBMS, OS and Networks. Also if you have done some electives and liked them, their brief revision will be useful.



Other Relevant Information

- 1. Watch out for H.R. questions intertwined between technical questions, since each interviewer also evaluates on the parameter of 'cultural fitness' in organization.
- 2. Knowledge about course subjects is valued, make sure to revise them.
- 3. When writing code on paper, use descriptive variable names and give words to your thoughts.
- 4. Even if you feel yourself to be decent in coding, go through Interviewbit/GeeksforGeeks as sadly recruiters aren't spending much resources on bringing in new questions but rather using questions on these preparational sites.
- 5. Mention your projects carefully. Make sure you are confident about the jargon you are using in the description. Same goes for electives, refrain from mentioning electives in which you are not comfortable.

All the best for your endeavours!

Sector: IT

Name: Hardik Gupta (2013B3A3435P)

Company: PayPal

Profile: Software Engineer

Recruitment Procedure

- 1. Online test
- 2. Technical Round 1
- 3. Technical Round 2
- 4. HR + technical round
- 5. HR round

In online test: There were 10 MCQs of basic programming, OS and OOP.

One programming Question of map and string (brute force was working).

Technical Round 1

- Tell Me about yourself
- Questions on Internships and Projects (it took 40 minutes)



• **Quicksort**(what is quicksort, mathematically derive its time complexity and worst case for choosing pivot as end point and random point) similarly for **merge sort** (differences between them).

Technical Round 2

Design traffic signal system. (You have to use OOP concepts along with data structure to control the flow. I answered with finite state automaton. this question took 30 minutes.)

then questions on my internship work and projects. He downloaded my app and installed in his mobile and asked questions. He checked my designs at Playstore

HR Technical Round 3

Tell me about yourself, tell me apart from resume what do you do, what have you done in your college life academic and non-academic

Design a parking lot for 3 different types of car (small , medium and large) (it took 25 minutes)

Again HR questions like what will you do if you don't get work you want to do and then again follow up questions

HR round:

why paypal?

how you think you are doing in interviews?

you happy by your performance?

Sources of Preparation

- 1. InterviewBit
- 2. GeeksforGeeks
- 3. OOP and OSclass slides
- 4. Puzzles at various interview sites

Courses and Certification



Knowledge of Objects oriented programming is required along with basic multi programming concepts. For internships and projects, my two products were live so that gives me an edge, interviewer downloaded the products and installed and then asked questions in depth from those, If answered correctly this will be a huge plus.

Other Relevant Information

HR round was like bit stressful, HR asked questions like what did you do if you don't like your work or you don't get what you want to do. And sideways a design problem was given and then again some HR questions, so they wanted to check your honest opinions So to answer such questions, have a background knowledge about company, your role and talk to seniors in company and tell HR that you talked to him and he told me the work culture is good and why

Sector: IT

Name: Mallikarjun Swamy (2014A7PS032P)

Company: PayPal

Profile: Software Engineer

Recruitment Procedure

- 1. Online Test
 - a. Duration: 75 min
 - b. 1 coding question and 10 MCQs based on important CS courses
- 2. 4 rounds of interviews
 - a. First round: Discussion on Resume.
 - b. Second round: DSA questions.
 - c. Third Round: HR questions and Design Problem.
 - d. Fourth Round: Trivial HR round
- 3. The questions asked during the recruitment procedure (coding and interview) of PayPal are fairly simple and you cannot afford to make silly mistakes.

Sources of Preparation

I prepared from popular websites like geekforgeeks and interviewbit for coding questions. To study courses like Database Systems, Operating Systems, etc, slides and tutorialspoint.com are helpful.

Sector: IT

Name: Aditi Tomar (2013B3A7755P)

Company: Cisco

Profile: Software Engineer

Recruitment Procedure

There were total 4 rounds:

<u>ROUND 1</u>: Close to 50 questions, No negative marking, test happened on metle platform. Topics asked were Aptitude(level easy to moderate), C/JAVA output/error finding questions, microprocessors, networking and very few non cs background(electronics questions). Try attempting as many questions as possible,Don't waste much time on any difficult/first time encountered question.

After this round around 15 students were shortlisted for technical interviews.

<u>ROUND 2:</u> first technical interview, Asked to introduce myself while 2 interviewers glanced through my resume. Specifically asked about what all projects have I done. Asked me to explain computer networks project(one of the 3 projects I have listed in my resume) explaining all block diagrams, protocols used, reason for choosing the protocol, what could have been used instead, future modification/scope of the project. In short cisco works in networks especially so they normally grill you on the topics related to it. A simple string reversal question (code & dry run), DBMS query to find second highest salary from employee database ,extending to find Nth highest salary(using order by and adding a column for count , extracting nth row), types of keys in DBMS (candidate,super,primary and foreign key, types of join- inner join,outer join(left,right and full)

Why do we need Operating system, function of semaphores, deadlock. A maths puzzle to calculate number of squares and rectangles in a chessboard (find ans for 3X3, generalise it). OSI model in Computer Networks, which layer is responsible for error detection? At last why do I want to join Cisco.

Other friends of mine were asked simple questions on linked list, tree traversals.

<u>ROUND 2:</u> Technical plus behavioral both.Asked to explain my Computer networks Project. It was a light-weight application protocol so they asked me what was the reason for choosing a lightweight protocol- what do you mean by light-weight, which protocol was used, reason(same as first round)What was the shortcoming of it as in what all new features could be accommodated to make it more efficient.Was asked to explain the new modifications in



detail(employed OS concepts). What do you mean by static variables, why are they used, difference between heap and static memory, stack and heap, dynamic memory allocation is done in heap or stack, dynamic vs static libraries.

Behavioral Part:

What did my internships teach me(apart from technical knowledge)?What challenges did you face while working or your projects?(like working as a team as well as putting your points forward) .What is/are one of the best achievements in your life ? Who is/are your role model and why? Also as a sportman what challenges do I face which are not so frequently encountered in normal life? Why people remember you most for? Do I want to go for higher studies? So basically they are testing if I will be able to adjust to their working environment. Lastly they asked me if I had any questions for them(I was blank but still managed to ask about the role they were offering).

<u>ROUND 3(HR):</u> Asked to introduce myself, How do I maintain balance between sports and studies? 2 things I would like to change about myself? 2 things I would like to keep about myself? Things People like in me? Why should I hire you? Why Cisco?

Sources of Preparation : Interview bit and DSA Made Easy by Narsimha Karumanchi for data structures, Course slides for DBMS(lab sheets are must) and Computer Networks(application,network,transport layer protocols) .Quick revision of OS concepts (deadlock,semaphores,paging,scheduling algo) from course slides . Also Geeksforgeeks - interview questions and last minute notes on DBMS,OS,Computer Networks.

Courses and Certification

Computer networks knowledge is must along with DBMS, DSA, OS.

Other Relevant Information

Should be strong/at least clear with computer networks concepts especially. Your resume should reflect what I know. So don't mention anything you don't know properly. Also it's always beneficial to go through past interview experiences posted on sites like geeksforgeeks before interview to know what kind of questions are most frequently asked. At last keep calm and confident throughout the process.

Sector : IT



Name: Vishal Maheshwari (2016H103082P)

Company: Cisco

Profile: Software Engineer

Recruitment Procedure

1. Written:

- The CGPA criteria for writing the exam was 7.0 and above.
- Test consisted of 50 questions in 60 minutes:
 - a. C aptitude(Output prediction questions, switch, macros, data types, condition checking using if else ,runtime and compile time errors ,static and dynamic binding etc.)
 - b. Quant: Included probability (drawing balls from bags), permutations and combinations, arithmetic questions, questions on sum of n terms, geometry questions on circles etc.
 - c. Logical puzzles- series, easy paragraph based questions on arrangements(example 5 husbands,5 wives , 5 professions for men,5 professions for women, and then based on the data given you had to find the right match for husband wife and their professions, a couple more like these.)These questions did not appear as a set of 3 or 4 questions. Only 1 questions was asked for the entire paragraph. It takes time to arrange all the data in the table so it would be important that we don't miss out on other easy questions.
 - d. Digital electronics and computer organization: Around 10 questions(how will you create a delay in train of pulses Serial in serial out ,parallel in parallel out etc., size of data bus in 8085 and other basic questions, address formats: auto increment, indirect etc.).Bit manipulation.
 - e. Data structures and algorithms: Trees (number of levels if leaves are given etc.)Complexity of code snippets.
- The test has a navigation button using which you can move on to the next question but at a time only 10 questions are displayed on the top bar and you have to keep clicking to go back to the previous questions. So keep 4 to 5 minutes to come back to the questions that you have not attempted. Also there is no option of flagging a question. So keep writing the question numbers at the back of the rough sheet to come back to those questions in the end. There is no negative marking.

Round 1 :(Technical)



(There was a panel of 2 interviewers)

- a. Projects mentioned on your resume. Follow up questions from what you answer.
- b. Asked to code a search program to find a phrase if 20 files are stored ,optimize it further,etc.I told him we could search on the files in parallel. More questions followed on threads and how many threads you would create for optimum utilization.
- c. Questions on CPU scheduling algorithms, their types, explain preemptive scheduling.(explained using arrival, burst time and grant chart)
- d. Question from DBMS: SQL queries (find duplicate rows, delete duplicate rows, return employees having salary greater than their managers). Types of Joins, explain each type (explained using tables). Asked the join I had used in the previous queries.

Difference between delete and truncate (explained that rollback cannot be done on truncate and that schema is preserved).He asked about Tablespace, (I said that I couldn't recall),Then he asked which one would take more space, truncate or delete(I told him that in delete you can perform a rollback and get the records back so those must be stored in some kind of a log).He was satisfied and started explaining where delete and truncate should be used.

- e. Program to remove duplicate characters from a string (used count array). had coded it in C++ and used an output string to which I was appending the unique characters after converting the character to string. Asked if every time a new string is created when I append ,I told him in Java a new string would be created as strings are immutable but not in C++. He asked further questions on immutability of strings in java. Asked me to write an employee class such that name and id are immutable strings. After writing the code I explained how the reference is stored on the stack and memory for object is allocated on the heap etc. More questions on Java.
- f. Puzzle: (Very easy) 2 wires are given .Measure 45 minutes. Each wire burns completely in 1 hour.
- g. Questions on OOPs: what is inheritance, types, is multiple inheritance supported in Java (told him that it could be implemented using interfaces). What are the problems associated with multiple inheritance (explained the diamond problem). Asked how C++ supports multiple inheritance. Differences between encapsulation and abstraction.

h. Questions on Computer networks: What happens when you type a URL in the browser (explained browser cache and how DNS hierarchy works).

How pages are loaded from the server to the client.

Difference between http and https. Is Http stateless? Why? Difference between SSL and TLS.



Round 2 :(Technical)

(There was a panel of 2 interviewers)

Projects mentioned on your resume. Follow up questions from what you answer. Detailed discussion on technologies used, their limitations, their real-life examples etc. Discussion on awards written on your resume. Explain the work that you did. How do you approach conflicts while doing assignments and projects in a team? Questions on OOPs Teaching Assistantship. What do you do if a student is not solving the questions in the lab sheet? What do you do if they want to leave the lab early etc? What are your 3 achievements? What are the failures that you faced so far? The second interviewer arrived and started asking technical questions.

How TCP works (explained 3 way handshaking with a diagram).what happens after this. How connection termination happens (explained that we set the FIN flag).What happens after that? I couldn't precisely recall the steps after that and told him the same. What is debugging?

What are virtual destructors? (I had mentioned C,C++ and Java on my resume). What is user space and kernel space? A program is executed in user space or kernel space?

Write a function to reverse the string.

After writing the code, he said that the code was correct but he was interested in the initial part in which I had tested if the string length was zero or one. He asked me to think about what could go wrong. I asked for hints to figure out what exactly he was looking out for. He said that the string should remain intact and explained me some examples which I couldn't relate to the problem at all (when you go to the market and pick a product, what do you do? I told him that I check its price. He said that's right and asked me to continue with the problem.)I suggested more test cases: when the start symbol was \n ,if the input supplied is not a string, string length is more that the buffer's capacity etc, but he kept on asking me to think more. Finally I gave up. He asked if I had heard about 'const' .Now it clicked me, I told him that I did and explained him that you will not be able to modify the input so it would remain intact.

Round 3 :(HR)

This was an easy round. The HR was very friendly and asked the following questions. Why Cisco? Why not other companies? What are your strengths? Explain your project on virtual machines in easy terms. Where are these used in the industry? Advantages etc. How do you handle conflicts in a team?



Questions on extracurricular activities. Questions on Relocation.

Sources of Preparation

GeeksforGeeks. Also the puzzle section is important as they would most likely ask a puzzle. Also the archives section of Operating system, networks and DBMS would be helpful.

The C++ and java articles on geeks would help you answer almost all the common questions if you are specifying any of these languages. Questions here can be tricky and unexpected. (One of the students was asked to write the code to implement malloc etc.).Online resources for Java.

Courses and Certification

They asked if I had done any certificate programs (CCNA or CCNP).I told them that I hadn't.

Sector: IT/ET

Name: Vineeth Reddy Yarram (2016H112172P)

Company: Cisco Systems

Profile: Software Engineer

CGPA Cut Off: 7

Rounds: Online Test, TR-1, TR-2, HR.

Sources of Preparation:

Aptitude can be prepared any book, for technical questions geeksforgeeks will do. In geeksforgeeks complete the OS, CN and DBMS sections. For the HR related questions you can get the answers from the pre-placement talk.

Courses and Certification:

There is no particular criteria on courses and certification. You just need to map them to the profile and convenience the interviewer that knowledge of these course matches the requirements of the profile.



Other Relevant Information

geeksforgeeks and interviewbit are the two major sources for the interview and coding preparation. Most of the questions came from here.

Sector: IT

Name: Rahul Agrawal (2014A8PS701P)

Company: Oyo Room

Profile: Software Engineer - Technology

Recruitment Procedure :

online test and 3 Tech interviews. (no HR round).

- 1. Online test: 2 coding question (easy) + 20 MCQ question (basic C+OS+oop concepts+apti(very few))— 1.5 hrs.
- 2. Tech interview-
 - Easy questions on time and space complexity.
 - Discussion on projects and internship.
 - Asked questions on arrays, graphs, hashing, binary search.
 - Os concepts.
 - complexity for various operations (like insert ,delete etc).
 - You can also ask for hints if you get stuck somewhere.

Sources of Preparation

geeks for geeks and OS slides.

Courses and Certification

No such requirement. But it's usually helpful if done course on OS, DSA.

Other Relevant Information



Mention only those things in Resume about which you can talk in depth.

Sector: IT

Name: Abhishek Teotia (2014A7PS145P)

Company: OYO Rooms

Profile: Software Engineer

Recruitment Procedure

- First round was an online round, with 18 MCQs based on theoretical questions from OS, DBS, OOP and Computer Networks, and 2 coding questions.
- Coding questions were easy, 1 was to search a word in a character matrix, and the other was a standard DP question.
- There were 3 interview rounds in general (though I was selected after 2).
- In the first interview round, to begin with, questions from my resume were asked, after that I was given to code (completely) a DP question (minimum steps required to go from a given coordinate to the other). Then there were some questions to provide the best time complexity possible to solve. Overall this round was easy.
- In the second round I was asked to provide some code snippets for a specific tasks from my project. I was asked a question from Multithreading (Thread Programming). I was asked the implementation of a Red-Black Tree (which I could not answer). Some coding questions from BST were asked.

Sources of Preparation

- Interviewbit for coding
- Geeksforgeeks for company wise preparation



Courses and Certification

- Operating System, OOP, Database System, and Computer Networks with theoretical details.
- System Design, Design Patterns, Database Design.
- Some puzzles were asked. Nothing else is required.

Other Relevant Information

- Practice and specific preparation for interviews is required.
- Interviews reject people who are either overconfident or underconfident.

Sector: IT

Name: Vishal Arya (2014A7PS073P)

Company: OYO Rooms

Profile: Software Engineer - Technology

Recruitment Procedure

The first step was a 90 minute or 120 minute test, consisting of 2 coding questions and 20 MCQs from DBS, OS, Comp Net etc.

This was followed by 3 rounds of Interview.

- Round 1: This round was based completely on DSA. The first question was to reverse a linked list. After that he asked me to write a complete working code to print bottom view of a binary tree.
- Round 2: This round started with some questions on my project related to server designs. It was followed by a Dynamic Programming question. After which there was a question on Binary Search trees. He also asked me some compiler and OS related questions such as Virtual Memory v Physical Memory, Paging and Segmentation etc. The last question was to design a Restaurant Management System (Only class and method Outlines along with data structures used).



• Round 3: This round started with a lot of discussion on my resume (specifically, Internships and Projects). Then he asked about Database Normal Forms and indexing in Databases (which I could not answer). Then I was asked to design a simple elevator Management System.

A few Random HR interview type questions were thrown in between all 3 rounds.

Sources of Preparation

- 1. InterviewBit
- 2. GeeksForGeeks

Courses and Certification

No courses/certification required as such.

Sector:IT

Name: Shubham Bansal (2016H112157P)

Company: OYO Rooms

Profile: Software Engineer - Technology

Recruitment Procedure:

Online Test: This was a both coding and CS - subject test of around 90 min. Out of 22 questions, there were 20 MCQ and two coding questions. There was no negative marking.

- 20 MCQ Based on data structures, C, OS & CN. (1 Mark each)
- Coding Q1 (6 Marks)

You have given 2D matrix of characters (like word game). You need to find number of occurrences of given word. <u>http://www.geeksforgeeks.org/search-a-word-in-a-</u>2d-grid-of-characters/



• Coding Q2 - (3 Marks)

Count number of ways to fill a "2 x n" grid using "1 x 2" or "2 x 1" tiles. <u>http://www.geeksforgeeks.org/count-number-of-ways-to-fill-a-n-x-4-grid-using-1-x-</u> <u>4-tiles/</u>

Technical Round 1: This round lasted for around an hour. Interview started with a standard "Tell me about yourself" and then about my working experience. After this, interviewer asked me following problems:

1. He explained me a new number system ("named as Despberry"). He gave me various examples of conversion from this number system to decimal. Each number in this system can have digits from 0 to 9 but base for calculating power is 2. (It's a like a combination of both decimal & binary).

Decimal of 41 = 9 (= 1 * 2^0 + 4 * 2^1). OR you can say that despberry of 9 is 41. This number system has a problem of collisions. Ex: Decimal number 9 can have multiple despberry forms like 9, 17, 25, 41, 201, and more. So after explaining all these in detail, he asked me to think of algorithm for finding minimum despberry of given decimal number. I also asked to write code for the algorithm.

- 2. He asked me "two burning rope" puzzle. As I already knew this puzzle so I told him. <u>http://www.geeksforgeeks.org/puzzle-1-how-to-measure-45-minutes-using-two-identical-wires/</u>
- 3. You have given a sorted array and an array-index. You need to count the occurrences of number present at given index. Return true if numbers occurs n/4 times otherwise false. (n is size of array.)
 - In this question, I told him linear solution first and then explained binary search approach. He asked me to write code. (so, I wrote function for searchleftmost-index & search-right-most-index). He asked me to use only single function call instead of two.



In the end, He gave me the chance to ask question. I asked him about his working experience with OYO and job profile.

Technical Round 2: This round lasted for more than an hour. After the introduction part, he asked me to explain any of my favourite project and then asked questions like major challenges in the project, team coordination, etc.

After this, interviewer asked me following problems:

- Write code for finding diameter of tree. (<u>http://www.geeksforgeeks.org/diameter-of-a-binary-tree/</u>)
- 2. He asked a design problem in which I needed to think of data structure and explain whole system with class diagrams. Problem was to design a car parking system. Suppose you have n parking slots numbered from 1 to n. This slot number also signifies the distance from entry-gate. Every time you need to assign a nearest parking slot to vehicle.
 - So In the problem, I used min-heap for maintaining free-slots and hashmap for allotted slots. I explained the working with class diagrams (vehicle, parking, etc...) and wrote functions for checkAvailableSlot, parkVehicle, unparkVehicle, calculateBill, etc.

Before coming to correct data structure I discussed other solutions and their efficiency. Interview was happy with the discussion on the design problem and after that he asked 1 or 2 easy questions on data structures.

Technical Round 3: This round lasted for around an hour. Interviewer was after optimisation in each question. Even optimisation was not feasible; he was giving me 10-15 minutes for the same.

Interviewer asked me following problems:

1. Given row-wise 2D matrix of 0 and 1's, count number of 1's in matrix. (sorted on rows only)



- I told him O(n²) and O(n logn) approach. He was expecting better than this.
- 2. You have given a stack. You need to create copy of stack.
 - I told him solution with the use of temporary stack. He asked me for not using stack. Then I told him recursive solution but again internal stack was being used so he asked me to do it in constant space.
- 3. You have given 2D grid, you need to find minimum distance between two points. i.e minDistance((x1,y1), (x2, y2)). He asked me to write algorithm and generalised equation for this.
- 4. The last question was a design problem. Design an efficient strategy of seating arrangement for groups. According to question, In movie theatre, there are n rows with capacity k. And an array of groups (each element indicating group size) is also given. Write code for best fit allocation.

Sources of Preparation

- 1. InterviewBit
- 2. GeeksforGeeks Interview Experiences and most popular coding problems company wise.
- 3. Data Structures and algorithms made easy by Narsimha Karumanchi.

Courses and Certification

Object Oriented analysis and design (OOAD) course was quite important. Their focus was more on design problems and data structures.

Other Relevant Information

Never give up on any question even if you are not able to come with the most optimal solution, just keep discussing the possibilities with the interviewer. Explain basic approach first and then discuss the improvisation.

Sector: IT

Name: Daivik Nema (2014A7PS023P)

Company: OYO Rooms

Profile: Software Developer

Recruitment Procedure

1. First round was an Online Test – There were 22 questions – 20 MCQs related to Operating Systems, Data Structures & Algorithms, DBMS, OOP and aptitude. Fairly easy stuff – nothing in depth. There were 2 coding questions – no topic in particular, just ad-hoc implementation problems (solvable in 10-12 minutes). The 20 MCQs were of 1 mark each. One coding problem was worth 6 marks and the other worth 3 marks. Time allotted for the test was 90 minutes. Around 25-30 people were shortlisted after this round.

2. Three face to face interviews followed the Online Test. In the first interview, I was asked basic algorithms and some amount of CS theory. The interviewer started off by asking me about myself, my interests and then asked me to explain my resume. He further made a slight change in the same problem by placing obstacles at some points in the grid. I was not asked to write code in this round – only to explain my reasoning. He then moved on to theory and asked me the difference between parallelism and concurrency. He asked me to explain semaphores and posed this problem – Given that multiple processes (assume 3) are trying to read and write from a file, how will we use semaphores to ensure that the file can be read concurrently, but written by only one process at a time. The interviewer spoke politely, gave sufficient time for each problem and provided hints when I was stuck.

3. The second face to face interview required coding up a trie data structure on paper. The interviewer took the use case of a search-bar. Given an incomplete search string – the program must query a dictionary of words and return a list of possible completions. For example, if our dictionary contains {"provide", "prepare", "polar", "perambulate"} then the search string "p" must return all the words in the dictionary; the search string "pr" must return {"provide", "prepare"} and so on. I was first asked to identify a data structure for this use-case – it was very obviously trie. He then asked me to write code for the same from scratch. It took 10-15 minutes for me to write code, he went through my code discussing it with me line by line. He provided a dictionary and a search string and asked me to dry run my code on that. He then asked me to explain my summer internship project in layman's terms. All in all, a very coding intensive round.

4. Final face-to-face interview was – in the interviewer's own words - "a general discussion". He started off by asking me what my interests were – to which I replied that I was interested in Machine Learning. He then asked me the following questions:

a. Why Machine Learning?



b. Do you know what OYO Rooms does? How would you use Machine Learning to improve what we do? Identify the use cases of Machine Learning in any big product – like Facebook – and suggest how the same can be implemented for OYO Rooms.

c. Suppose we have a very large dictionary of words (think petabytes) that we need to store and efficiently query – as in the search-bar use case from the previous interview, how would we store it? (He was expecting me to tell him which data structures I would use, along with proper reasoning).

d. Suppose now, that the search-query can contain spelling errors – how would we identify a set of possible correct words from the dictionary – what data structure would we use?

The interviewer did not seem very happy with any of my answers, and most of the time I could not understand what he was expecting me to say. I am still convinced that I completely screwed up this last interview.

In summary, the process is easy if you're above average/good at data structures and algorithms. You need to know basics of CS courses like DBMS, OS and OOP – but I was not asked anything in depth from these.

Sources of Preparation

Read all theory articles on GeeksForGeeks. For coding, work through all sections on InterviewBit (this may not be required/very easy if you already have experience with competitive coding on platforms like Codeforces, Codechef etc)

Courses and Certification

Data Structures & Algorithms

Sector: IT

Name: Arjav Nag (2013B5A7664P) Company: Tesco

Profile: Associate Software Development Engineer

- Online Test, Shortlisting, Technical Interview, HR Interview
- Test had 2 coding questions and a duration of 2 hours
 - i. One was simple ad-hoc
 - ii. Second was based on Dynamic Programming
- There was only one Technical Interview which easily went on for over an hour. Conceptual questions were based on all the Computer Science courses that have

been completed, with main focus on OOP and OS. Some simple DS and Algorithms were also asked.

- The HR Interview was a detailed discussion on the points mentioned in the resume. This is probably the round that mattered the most.
 - i. Tell us about yourself.
 - ii. Consequent questions based on previous answer.
 - iii. Certain scenario based questions to gauge behavioural and decision making skills.

Sources of Preparation

Practice coding on different online judges to brush up on DSA. Revise concepts of OOP (specifically languages mentioned in resume) and OS (address spaces, paging, deadlocks).

Courses and Certification

OS, OOP, DSA

Other Relevant Information

In the final HR round, you need to be able to convince them as to why you would be a good fit in their company. All your answers should ideally converge and build on this fundamental idea. Recalling information from the PPT is an added bonus.

Sector: IT

Name: Nikhil Verma (2014A3PS200P) Company: Tesco Profile: Associate Software Development Engineer (ASDE)

Recruitment Procedure

The recruitment procedure had a coding test and two rounds of interviews. The test was conducted on HackerRank and was of moderate difficulty.

The interviews had two rounds, with the first one being a thorough technical round. It lasted for about 1.5 hours. You'll be asked questions from all aspects like DSA, OS, DBMS and OOP. I was also asked two design problems in the end.



If you get through, you'll have an HR round next. I was given certain situations and asked how would I handle them. This was fairly easy.

Sources of Preparation

InterviewBit for practice and GeeksforGeeks for theory.

Courses and Certification

Being from EEE, I had DisCo, OS and OOP as electives. Nothing special here.

Other Relevant Information

1. It's better to get a good high level overview of DSA, like what data structures are preferred where, similarly for algorithms.

2. Programming language isn't a barrier in most of the tests.

3.DSA is the prerequisite, projects come next.

Sector: IT

Name: Gaurav Sharma (2016H103075P) Company: Tesco HSC

Profile: Associate Software Development Engineer

- 1. Online coding round, Technical Round, HR Round.
- 2. Online Coding round had 3 easy questions to be done in 1 hour.
 - a. The first question was almost trivial.
 - b. The second question was to find a pair of numbers in an array with given sum. (However an O(nlogn) algorithm was getting timed out.)
 - c. The third was as follows: Given an array of numbers(non distinct) and a number k, find the maximum number of non overlapping subarrays having all elements less than or equal to k.
- 3. The technical round had easy questions based on algorithms, operating systems, networking, and the projects.
 - a. First question was to as follows. Given an array which tells the share prices on various days, find the day to buy and sell such that the profit can be maximized. (Hint: See CLRS 3rd edition, page 68 maximum subarray



sum.). The interviewer wanted full code with boundary conditions and an example, time and space complexity.

- b. Program for BFS, DFS. When can we use both, example where one works and other doesn't. Space and time complexities of both.
- c. Questions on paging and address space, processors.
- d. Given a dialog box showing progress of a file transfer, tell the number of threads in it.
- e. Ways to protect a global variable with threads. Critical section with independent processes writing files.
- f. Question on barriers.
- g. How to implement shared memory ?
- h. Question on CIDR.
- i. Why is C++ faster than java? Concept of JVM.
- j. How to protect a web server from DDOS attack.
- k. Tail recursion and how it can be helpful for optimization(See tail call and reusing stack space).
- I. Questions on project, etc.
- m. Some other questions that I forgot.
- 4. HR round was long(~45 minutes).
 - a. Tell me about yourself, family.
 - b. What exactly was done during internships?
 - c. General questions on project.
 - d. What did you do before coming here?
 - e. One of them asked about some places in bangalore as I mentioned that I was in bangalore for some time.
 - f. One question was as follows. These days doctors don't want to type the prescriptions on a computer but systems are fully computerised. How will you deal with it ?
 - g. Does a pilot need to learn how to ride a bicycle before learning how to fly an airplane ?
 - h. Has there been any conflicts that you had with a teammate and how did you overcome it ?
 - i. Your projects are useless for us . Why should we hire you ?
 - j. Did you have any fight/argument with anybody in last two months?
 - k. How do you see yourself in 5 years ?
 - I. What motivates you to work hard?
 - m. They tried to get into an argument with me several times (Hint : Never ever get into an argument with anyone during HR interview).

Sources of Preparation

1. Geeks for geeks, Hackerearth , Hackerrank.

Courses and Certification

1. None

Other Relevant Information

1. None

Sector: IT

Name: Divya Anand Sinha (2014A8PS448P) Company: Tesco HSC

Profile: Associate Software Development Engineer

Recruitment Procedure

• Coding test

2 questions ,one on arrays and one basic dp problem.

• Technical Round

Interviewer was friendly ,Questions asked on Object Oriented Design(give a basic overview) ,rotate matrix by 90 degrees(write code),Check a linked list is palindrome or not in O(n) time and O(1) space. Asked about my projects ,in-depth discussion.

• HR round

Basic HR questions, what technologies are you familiar with, what contribution will you have for the company, why IT.

Sources of Preparation

Practiced coding for companies from interviewbit and geeksforgeeks, almost all of the questions are directly from these sources. Regular competitive coding.

Courses and Certification

Studied DSA, Operating Systems, OOP for IT companies.

Other Relevant Information



Practicing from geeksforgeeks or interviewbit helps a lot. Be thorough with your resume and topics like OS ,OOP as these are the topics that are asked the most.

Sector: IT

Name: Surbhi Dang (2013B3A7603P) Company: Tesco

Profile: Associate Software Development Engineer (ASDE)

Recruitment Procedure

- Online test, technical interview
- Test had 2 questions to be solved in 2 hours.
- One was a variant of LIS.
- Other was to find the smallest window of words in a paragraph, fulfilling a given condition (having all the words given in a list)
- First technical round- 2 data structures questions were asked. They asked to write the pseudo code. Questions on OS, networks, dbms, OOP were asked. A real life situation was given, and the interviewer asked me to design an ER diagram, explaining relationships and reference relations between them. Then they asked to convert the same structure into an object oriented design, asking all the variables and methods to be incorporated. The interview lasted for than 1 hour.
- Questions were:
- <u>http://www.geeksforgeeks.org/print-nodes-distance-k-given-node-binary-tree/</u>
- given an array of numbers, find the first non-repeating number. He modified the question to if in place of an array, a stream of numbers is given, and we need to find the first non-repeating number at any point.
- Next round was HR+projects based. Questions about electives, projects, internships were asked. General technical questions were asked.

Sources of Preparation

Interviewbit.com and geeksforgeeks for the online test. Course slides for OOP, OS, networks and DBMS.

Courses and Certification

Data structure and algorithm, Operating Systems, Database Systems, Object Oriented Programming and Computer Networks. For OOP, design patterns are also asked sometimes.

Other Relevant Information

Don't mention anything on your resume that you don't know. For OS, dbms, OOP, in addition to the slides, go through the questions on geeksforgeeks. Sometimes the interviewers directly ask questions from there.

Sector: IT

Name: Subhash Kumar Samota (2014A7PS060P) Company: Tesco HSC, Bangalore Profile: Associate Software Development Engineer Recruitment Procedure:

Online Coding Round, Technical Round, HR

There were two questions in coding test. Both were easy. First one was ad-hoc and second one was a simple DP problem.

After this round 19 candidates were selected for next round. In this, the interviewer started with my academic projects. I had done projects in network programming. So he started with socket programming questions and discussed the projects in depth. He asked me the questions related to the components that were involved in the project. My projects were based on client-server architecture, so he asked many questions based on that. This was a long discussion(about 50 minutes). After that he asked me the Travelling Salesman problem. I didn't remember the DP solution, so I told him the 2-approx algorithm. In the end he asked me to write a function to insert a node in doubly linked list. He just wanted to check that I know how to manipulate pointers.

In HR round, questions were

- What has been your toughest decision in life?
- How do you get along with team members?
- What excites you about Tesco?

and some more questions like these.

Sources of Preparation

For coding questions, you can prepare from geeksforgeeks and interviewbit. For subject matter, course slides are sufficient if you read them thoroughly.

Courses and Certification



No special Requirement.

Other Relevant Information

They were looking for the people who had knowledge of the projects they worked on. So it is important that the projects that you mention on your resume, you know them inside out. And what their scope is, how these projects can be extended.

Sector: IT

Name: Vandit Arvindbhai Thakkar (2013B4A7616P) Company: Tesco HSC

Profile: Associate Software Development Engineer

- Coding Test:
 - **Duration:** 2 hours. **Platform:** Hackerrank. **Questions:** 2 algorithm challenges
 - **Question 1:** Maximum frequency Element is defined as the element with maximum occurrences in given array. Find the minimum size window in the array with all occurrences of any of the Maximum Frequency Element.
 - **Question 2 :** <u>http://www.spoj.com/problems/FARIDA/</u> same problem in different language.
- Technical Interview Round 1:
 - Data Structure and Algorithm problems
 - Buy and Sell stocks I
 - Word ladder II (Graph Problem)
 - Find first non-repeating element in -
 - Given Array: hashing approach
 - Stream data: Queue + hashmap for frequency
 - Discussion on sorting algorithms:
 - Comparison
 - Complexity Analysis: Merge Sort, Quick Sort, Radix Sort, Heap sort
 - Operating Systems
 - Discussion on CPU Scheduling algorithms
 - Some concepts like starvation and its solution



- o Database Systems
 - Discussion on ACID properties of Database transactions with examples

• HR interview:

- General Discussion and Behavioral Type Questions:
 - What interests you more? Mathematics or Computer Science?
 - What did you like most and least about Tesco?
 - What new did you come to know in Pre Placement Talk?
 - Why didn't you do any internship in summer?
 - Why not joining parent's business of grocery retail and growing the business with use of technology?
 - Discussion on areas where technology doesn't contribute much.
 - What do you know about daily routine of a software engineer?
 - What did you do in a particular smart city project (mentioned in resume)? Was it a group project? What was your role?
 - Why didn't you commercialize your product and approach smart city startups or municipalities directly?
 - What kind of maintenance report did you make in your projects?
 - What did you do as a project leader for a non-profit organization during college period?
 - How do you motivate juniors to work for society as a volunteer?
 - How do you deal with language barriers when communicating and teaching kids at local community?
 - Why Tesco?

Sources of Preparation

Interviewbit and GeeksforGeeks. EVERYTHING ABOUT COMPANY from various resources. Company website, wiki, news, initiatives, major products, work culture statement of company.

Courses and Certification



- DSA, OS, OOP, DBS, Computer Networks

Other Relevant Information

- Technical round is very long in recruiting procedure for Tesco. Unlike other companies, they asked everything in one technical round.
- You will be asked to write code on paper. Use proper variable names, coding constructs and avoid overwriting.
- In HR round, I intentionally added some product names and company culture statements at appropriate places smartly. They are just checking if you are really interested in company. So it might help.
- Technical proficiency is the most important for IT jobs. Be fluent in coding. You should be able to code everything in your mind.

Sector: IT

Name: Ketan Chandak(2013B4A7582P) Company: Zendrive

Profile: Software Development Engineer

- First round was an online test on Hackerearth. The test consisted of 3 coding questions, which are all mostly ad-hoc. One of the questions was to find the number of pairs in an array whose sum is also present in the array. Another question was to find the maximum sum of lengths of disjoint subarrays such that the maximum element in the each disjoint subarray is exactly k(given). The third problem was to find the number of odd and even digits in a number.
- The technical interviews were held on Skype. Both the technical interviews were algorithmic rounds and complete code was to be written in a shared screen environment. The questions were:
 - **1.** Make a deep copy of a linked list having a next and a random pointer.
 - 2. Given a nxn matrix, sorted row wise and column wise, print all the n*n elements in the matrix in sorted order.
 - **3.** Find number of binary strings of length n in which no two 1s occur consecutively.
 - **4.** Given n 2D points, find the maximum number of points that could fall in a straight line.
 - 5. Check if the given binary tree is a mirror of itself.



The last round was taken by the co-founder himself and it was mostly about my internships, hobbies, goals and aspirations. They were some technical questions in the middle regarding finding most frequent character in a large string and when using a frequency array is more beneficial as compared to a map based on the size of the character set being used.

Sources of Preparation

Geeksforgeeks, InterviewBit and Cormen. Go through standard trees and linked list based questions and read a bit about DP and other advanced concepts.

Courses and Certification

Other than data structures and algorithms, no special courses as such is needed.

Other Relevant Information

Since the interviews were on Skype, the entire code was asked to be written down on a shared document. So, practice writing neat and efficient code, try to explain the interviewer what you're doing step by step. Divide the problem into functions and code them accordingly. Apart from this, be prepared for standard questions like why a small startup and not a very well established company, higher studies plans and all.

Sector: IT

Name: Manesh Narayan K(2013B1A7542P) Company: Zendrive

Profile: Data Scientist

Recruitment Procedure

Online test , skype interviews

Online test had 2 sections -

- MCQ (Data Science profile) Includes questions from probability and statistics, and requires a decent understanding of Machine Learning concepts.
- Coding (Software Dev profile) 3 fairly simple coding questions.

1 hour in total. Attempt section corresponding to preferred profile and the other section to be attempted for bonus points. Attempting both completely may not be possible in given time.

Skype Interviews -



- Three rounds. One on data science, one coding round and the last one with the cofounder on data science.
- Data science rounds consisted of discussion on project work and internships. Questions were on simple problems and probability based approaches to the same. Interviews focus more on the approach than reaching the correct solution.
- Coding round consisted of questions requiring good understanding of DSA.

Sources of Preparation

DSA is fairly straightforward. Standard interview prep (coding prep) will suffice.

Need to have an understanding of probability and statistics and the broad concepts in machine learning. Specifics in terms of implementation or formulas are not stressed upon.

Courses and Certification

The Andrew NG ML course may be worth a glance; however as mentioned earlier, the idea is only to check understanding and approach and not the implementation details, so the course is overkill for that.

Sector: IT

Name: Prakhar Srivastav (2014A8PS450P) Company: Societe Generale

Profile: Senior Software Engineer

Recruitment Procedure :

1) Online test

a) Conducted on Hirepro.

b) All MCQs

c) Sections : Aptitude, English comprehension and grammar, general programming skills, output based questions on Java or C#.

d) Topics included DBMS, DSA, Software Design Principles(iterative, waterfall, agile etc), OOP

e)Sections were timed and were in the order mentioned above. We could change the answers to the active section only.

f) Difficulty: Easy to Medium category questions.



2) Interview

a) There were three rounds of interviews: 1 Technical, 1 Technical+Manager round, 1 HR.

b) Technical interview was about the fundamentals of DSA, DBMS, OOP. The interviewer asked about the version of programming languages used. Difference between Java and Python, Compiler and Interpreter, Memory Map, choice of data structures for a given situation, normalization, acid properties (transaction management). Basic questions on array and linked list, rotation of array, Java keywords, function signatures. Projects must be known completely and do not include any work that you have not done. My project was on Genetic Algorithm and I was asked to write the entire code for the algorithm and explain it to him. Similarly for Image Processing. Questions on family background and plans on higher studies were also asked. Approximate Duration : 45 minutes.

c) Manager Round: Hiring manager wanted to know the candidate better and also judged critical thinking ability. Basic questions on linked list and arrays, how they are represented in memory and their real world applications, applications in Operating Systems/Compilers etc. Then the interviewer gave me a case study. If he wants to build a cricket stadium in Pilani and there is no limitation on money, as a consultant you have to list down 10-12 things that must be thought before building the stadium. For example, no of seats, maintenance, security etc. The interviewer was checking how far sighted our planning is and how we can plan ahead to tackle any situation that may arrive later. He asked a lot about my family and my plans for higher education. He asked me questions like why should I hire you, what can you bring to the table , where do you see yourself in the next 5 years. Approximate Duration : 30-35 minutes.

d) HR round: Typical HR questions. Introduce yourself, strengths and weakness, where do you see yourself in the next few years, higher studies, what do you know about the company, what do your friends think of you, are you content with the salary being provided, are you open to both Bangalore and Chennai. He also inquired about how many interviews I gave before and what went wrong in them. He briefed me about the job type and what is expected of me. Approximate Duration : 10-15 minutes.

Sources of Preparation

GeeksforGeeks, Interview Bit, Karumanchi(Book), course slides(very important for oop, dbms)

Courses and Certification

NA

Other Relevant Information

Appearance does matter, so dress smart. Although they did not ask any questions, but the fact that I did SAPM and DRM added to my advantage. I will suggest to go through basic



concepts like options and forwards , futures if time permits. Be confident and smile. Do not panic.

Sector: IT

Name: Devraj Palit (2013B4A3765P) Company: Société Générale

Profile: Senior Software Engineer

- Online Test, 3 Interview Rounds Technical, Manager and HR
- The test had 55 MCQs divided into
 - Aptitude Moderate difficulty level but have to be quick
 - General CS concepts(OS, OOP, etc)
 - JAVA (output for given codes) collections framework, advanced concepts in java. had a few questions with peculiar(read: ultra rarely used) keywords.
- While the Aptitude questions were mostly moderate level, the CS questions were
 of a higher standard. Each section was individually timed and going back to
 previous section(s) was not allowed.
- Technical Interview:
 - Tell me about yourself. Some general small talk to ease into the actual interview.
 - What is a Stack? Implement it(should be able to store any form of data). I did it using ArrayList<T>. He then asked how ArrayList works internally and to implement the stack using a) arrays and b) linkedlist. Advantages/ Disadvantages of the three.
 - Given an array of integers, find those elements whose negative values are also present in that array. eg. Array: 1, 2, 4, -2, 6, -1.
 Output: 1, 2. First did in O(n^2) then in O(nlogn) by defining a custom compare method which considered absolute value of int to compare.
 - A parking lot is represented as a binary square matrix of size n*n where a[i][j] = 0 means empty and 1 indicates occupied. Find the largest straight line of cars parked (line can be in any possible direction). First provided bruteforce solution(modified crossword wordfinder) which was O(n^3). The interviewer kept poking me throughout this question telling me that this solution is useless, solve the question fast, you're running out of time etc. I finally gave a solution which was O(n^2) with some optimizations which made it O(n) in average case. The interviewer later said that this



was a pressure test where he was trying to judge whether I would give up or continue until the last moment.

- Manager Interview:
 - Two managers were on the other side of the table.
 - Tell me about yourself. Did you know about Societe Generale beforehand etc etc...small talk for 5 mins.
 - Explain your projects in detail a lot of counter questions.
 - Assume you have an infinite supply of money and you have a task of building the best possible sports stadium in Pilani. What points would you consider? List 10 points. They were trying to understand what one was more focused upon(Security and accessibility were my major concerns). 5 mins in this.
 - Given a list(very long) of integers, what's the 10th maximum number.
 First, I suggested sorting using merge sort in O(nlogn) and output the 10th number. On being asked to optimise, I suggested using max-heap but he said to do it without extra space. So, I gave solution where the outer loop for bubble sort ran for 10 times O(klogn) k=10.
 - Where do you see yourself in 5 years? What are the things you'd like to do by then? Why do you think SG can provide you all that? etc..
 - What are the most important thing you've gained in BITS?
 - Do you have any questions for us?
- HR Interview:
 - O Gen talk.
 - What's the coolest thing you've done in/with tech?
 - Why do you want to pursue a CS oriented career when you're a EEE student?
 - Who are you to your friends? to your family?
 - B'lore or Chennai?

Sources of Preparation:

• InterviewBit, GeeksForGeeks and a whole lotta love for programming.

Courses and Certification

Nope.

Other Relevant Information

Apart from your technical skills, these people want to judge your character. Almost half of my Manager Interview was dedicated to the latter.



Sector: IT

Name: Anand Maurya (2013B5A7635P) Company: SmartPrix Profile: Software Developer

Recruitment Procedure

- Online Test 1: Several technical questions in OS, OOP and DSA etc, duration was 30 mins.
- Online Test 2: Several aptitude questions/logical puzzles, duration was 30 mins.
- Online Test 3: 2 Coding questions, duration was 2 hrs.

Q1. Given a string with text and special characters such as backspace, up arrow, down arrow, enter,

delete, caps-lock etc. Output the formatted text as it would it appear in a text editor. Q2. Implementation of a simple compiler for an assembly language with instructions such as echo, add,

set, if, end, continue etc.

• Technical Round 1/ Skype Interview:

Questions based on projects.

Q1. Given a string output the text in a given pattern.

Q2. Implement while loop for the compiler question from online test 3.

Sources of Preparation

- Interviewbit
- Geeksforgeeks

Other Relevant Information

• Implementation based questions are asked.

Sector: IT/Analytics

Name: Aparajita (2016H112165P)



Company: MarketFront Profile: Software Development Engineer

Recruitment Procedure

Round 1: 3 programming questions on hacker rank based on sorting and file operations. Basically, you need to have command over language API to easily clear written.

Round 2: 3 coding questions one was on XOR operation and other was custom sorting based. 1 was DP question to find longest magical sequence [magical sequence has only vowel in order of a,e,i,o,u and any vowel can occur multiple times but order should be maintained]

Round 3: Interview (Video call) round, questions were given by interviewer and we need to write the code and compile and execute it. Screen was shared with interviewer. Interview started with tell me about you and then few questions related to my work experience.

Find K closest pair of points to a given point , <u>http://www.geeksforgeeks.org/closest-pair-of-points-onlogn-implementation/</u>.Given n appointments, find all conflicting appointments. <u>http://www.geeksforgeeks.org/given-n-appointments-find-conflicting-appointments/</u>

They asked few questions like what you think the biggest challenge e-commerce website can have. Few questions related to hadoop and cloud, as these were used by them.

Round 4: This round was scheduled with the Director, he started with tell me about yourself, family and my home city. He asked me to design Parking lot <u>http://www.geeksforgeeks.org/design-parking-lot-using-object-oriented-principles/</u>. He then asked me about my projects and how did I manage those. Why Mtech and why start up. He also asked questions related to clustering, classification, dataset pre-processing. Few questions related to cloud and few more questions on data structures and algorithms.

Sources of Preparation

Interviewbit.com and geeksforgeeks.org for online tests. Practise contests on hackerrank.com will make you familiar with platform and type of questions asked.

Courses and Certification

Prepare design questions from geeksforgeeks. Data structures and algorithm is must to nail any interview.

Other Relevant Information

If you are attempting startup interview process, then you may need to convince the interviewer for the motivation which drives you.



Sector: IT/Analytics.

Name: Mandar Waman Khapekar (2014A3PS271P)

Company: CITI Bank

Profile: Analyst Program

- Online test, Technical interview, HR
- Online test contains Aptitude questions & C/C++/Java technical questions
- Test was very easy. I had no prior knowledge of C/C++/Java but still I was selected for the technical interview based on my aptitude score
- Technical interview questions: (overall easy)
 - o Should have complete knowledge of projects/PORs listed in the resume
 - o 2 simple aptitude questions
 - o 2 simple coding questions (syntax not important only logic is necessary)
- HR questions:
 - o Tell me about yourself
 - o Describe yourself in 3 words



- o Asked for a reason for my low CGPA (6.87)
- o How do you handle conflicts?
- o Do you seek feedback from your peers?

Sources of Preparation:

No apparent preparation done.

Courses and Certification:

No course prerequisites.

Other Relevant Information:

Keep a clear mind. Be relaxed. Avoid fidgeting with the pen or shaking the legs (it shows that you are uncomfortable). Whenever asked "Do you have any questions?"—try to ask some relevant question (shows that you are interested in the position).

Sector: IT

Name: Anand Mahadevan SS (2014A3PS172P)

Company: CITI bank

Profile: Tech Analyst/Software Developer

- Online Test, Technical Interview, HR Interview
- <u>Online Test</u>: Test had questions from Verbal Reasoning, Logical Reasoning and Data Interpretation, Quantitative Aptitude and C Programming Theory, and also two coding questions.
 - Aptitude questions were of medium difficulty. If you are preparing for CAT or any other exam, this should be cake for you. C Programming Theory was not very deep, revision of CP topics should help. Questions like finding the error in code, some theory on pointers, struct, union etc... were asked.



- For the coding questions, we had to choose C, C++ or JAVA before starting the test. Questions were not difficult (Given you have been coding for a while). Time complexity was not an issue. So you could even force the solution.
- <u>Technical Interview</u>: Interviewer asked mainly about my internship project. He had asked to write the pseudo-code for some part of it. Then he asked about my other projects. Then he asked some string based questions in C++. Started with simple manipulation and increased the complexity gradually. Finally asked me to improve the time complexity. Then he asked basic OOP questions and some logical puzzles.
- <u>HR Interview:</u> Purely based on your resume. They asked about all the achievements and PORs I had written in resume. Then some general questions on conflict management and time management, why IT job after doing electronics, etc...

Sources of Preparation

For aptitude: geeksforgeeks.org, indiabix.com, CAT preparation books

For coding: geeksforgeeks.org, interviewbit.com, hackerrank.com

Courses and Certification

Doing OOP, DISCO and DSA will be a plus. But even if you have done this on your own, it

won't be a problem. They'll test anyway if you know the concepts.

Other Relevant Information

Try to convince the interviewer that you are apt for the position, also tell them what you know, divert their questions to your areas of expertise. Speak confidently, be polite and clear. Try to connect with the HR. Be clear about whatever you have written on your resume. That should do it!



Sector: IT

Name: Sharvari Deshmukh (2013A8PS460P)

Company: Citi

Profile: Application Analyst Programmer, Citi Analyst Program Pune

Recruitment Procedure

- Online test: Verbal, Quant, C/OOP basic questions
- Technical round: Basic coding question to test your familiarity with language and logic, questions on pointers, asked to write one code on paper
- HR:
 - Questions about your projects, skills, internships mentioned in resume
 - Describe how you handled any conflict situation.
 - Have you worked in team? What was your role?
 - What's the toughest decision you've made yet?
 - How will you describe yourself in just 3 words?

Sources of Preparation



GeeksforGeeks is enough to cover all basics. Typical HR questions should be prepared beforehand to answer confidently.

Courses and Certification

None needed in specific. Knowing OOP, Java/C/C++ or any coding language gives an edge.

Other Relevant Information

Being confident and convincing HR that you are totally interested in the job is very important.

Sector: IT

Name: Vinayak Awasthi (2013B3A3658P)

Company: CITI Bank

Profile: CITI ANALYST PROGRAM PUNE

Recruitment Procedure

- Test was easy. However, it is important to maintain speed to finish all questions. Last section I had missed a few questions. Although they shortlisted almost everyone.
- The online test was on HackerRank, it had 2 coding questions and 10 multiple choice questions.
- Technical Interview Basic coding questions with any preferred language. Didn't go deep in the subject. Some puzzles were asked ("how to do something in minimum tries" type questions). Technical questions were basic code writing to print patterns and mere definitions of important terms.
- HR Interview questions from the CV. Basic focus on extracirriculars and personality related questions. Why do you want to join despite having a research profile?. Do keep a convincing answer to this question, gets asked a lot of times, almost in any HR interview.

Asked everyone questions on conflict management. – describe any incident In life while working in a team and there were some problems faced amongst members. How did u go about solving the issue and what was the result?

Sources of Preparation



- 1. Codechef.com
- 2. Hackerearth.com
- 3. Other any known website

Courses and Certification

Basic coding background should suffice to crack this interview. It's a day 3 company and hence a hot pick for non CS branch candidates.

Other Relevant Information

Most job interviews and not just CITI bank are FIT based rather than SKILL based. You need to be able to convince the recruiter why you wish to join that particular organization and not work in some other sector or go for higher studies.

To answer this, apart from preparing about that one company, you needs to know of other job opportunities specific to your profile and then justify why this job among all the choices you have.

Sector: IT

Name: Subham Kumar (2014A7PS121P)

Company: Citi Bank

Profile: Software Engineer

- Online test, technical interviews, HR interview
- The online test was on HackerRank, it had 2 coding questions and 10 multiple choice questions.
 - 1. For the coding questions, through knowledge of strings, trees, graphs and DP is required.



- 2. For the MCQ's Data Structures and Algorithms and Operating Systems is required.
- Technical Interview Questions:
 - 1. Tell me about yourself.
 - 2. Questions based on projects, prepare thoroughly
 - 3. Basic Questions in C and C++, pointers, printing patterns of asterisks and numbers etc.
 - 4. Questions in DBMS, especially RDBMS, what is it used for, Codd's 12 rules
 - 5. Puzzles, how to cut a cake into 8 equal pieces with only 3 cuts of a knife, etc.
- HR Interview Questions

1. Describe a project where you worked in a team, faced conflict and how did you resolve it?

2. How did you take rejections of your solutions to any problem which you faced in your projects and team assignments?

3. 50% work at Citi will be interesting the rest will be boring, especially in the beginning because you will be learning how to function in a corporate environment, will you do it? If so why?

4. Where do you see yourself in 5-10 years? (Indicate that you have absolutely no interest in higher studies)



Sources of Preparation:

- InterviewBit, solve everything there and you have a very good chance of being placed early on.
- Geeksforgeeks, for all the preparation in other topics like OS, Networks, DBMS etc, various programming languages like C,C++,Java and Python, interview questions for the companies once you know which companies are coming.
- Brush up aptitude and puzzles, but only after adequate preparation of the above.

Courses and Certification:

- Data structures and Algorithms
- Discrete Mathematics for Computer Science
- Design and Analysis of Algorithms
- Computer Programming
- Operating Systems
- Computer Networks
- Database Systems

Other Relevant Information:

Most other IT interviews and tests are of a similar nature, so the above steps will hold good for preparation in general.

Sector: IT/ET

Name: Raunaq Nandy Majumdar (2014A8PS396P)

Company: CITI

Profile: Graduate Analyst Program, Pune

Recruitment Procedure

1. <u>Online test:</u> It contained questions on verbal and logical reasoning, quantitative aptitude, data interpretation questions, two coding questions and other basic programming questions. Overall difficulty level of questions: EASY



2. <u>F2F Interview</u>: Discussions on projects mentioned in resume. I was asked some basic questions about OOPS, structure, objects, class, Verilog. Some puzzle questions might be asked. Candidates must be confident about their answers as there will be follow up questions based on your response.

3. <u>HR Interview</u>: Questions on POR, real life conflict handling examples and other template HR questions. Be confident, and always wear a smile on your face. Don't be arrogant as HR will have final say about your recruitment.

<u>Sources of Preparation</u>: Nothing specific. Can prepare programming basics from tutorialspoint.

<u>Courses and Certification</u>: Knowledge of OOPS, OS basics, DSA basics will give you an edge over others.

<u>Other Relevant Information</u>: Interview is going to be easy. Don't lead the interviewer to areas where you are not confident about, don't be brutally honest. When people say be yourself in interview, don't believe them, it backfires. Be the person the profile wants you to be and you will be good.

Sector: IT Analyst.

Name: Kavisha Agrawal (2014A1PS673P)

Company: Citi bank

Profile: Application Analyst Programmer

Recruitment Procedure

Online Test, Technical Interview, HR

• Test had 4 sections:



a. MCQ on basics of programming language you choose.

b. Quant

- c. Logical Reasoning
- d. 2 coding questions.
- Test was easy. You have to choose one language out of C/ CPP/ Java before starting test.

• Questions:

- o Technical round
- a. Tell us about yourself
- b. Follow up one coding question
- c. Some aptitude questions to check your presence of mind, ability to traction urgency.

d. Detailed questions on summer internships to review how much capability, interest you have in learning things

- o HR Interview
 - a. Questions regarding Position of Responsibilities to check how well you can work and lead team.
 - b. Different situation based questions for behavioural check.
 - c. A question related to finance background.



Sources of Preparation

Aptitude questions from different sources like RS Aggarwal, youth4work.com. Also for mcq programming questions, youth4work.com has a collection.

Courses and Certification

No subject as such. Basic knowledge of subjects/ electives you have completed and Basic knowledge of any of the programming language.

Other Relevant Information

Be thorough with what you have written on your resume. You need to be able to convince the recruiter that you are always open for learning new things.

Sector: IT

Name: Sarthak Jain (2014A3PS274P)

Company: CITIBank

Profile: CITI Analyst

- Online Test: The test was easy. It contained aptitude and easy programming questions.
- Interview: We had two rounds:
- In the first round, easy JAVA questions were asked. As I am from Electrical and Electronics Branch, they asked me (almost three times) why I wanted to join the company.
- The second round was HR round. Very common HR questions were asked.



• In short, the interviews were a piece of cake if you have basic OOP and puzzle solving skills.

Sources of Preparation

Search online for normal interview puzzles. That would suffice. Other than that, study a bit of Object Oriented Programming if you havent done a course in OOP.

Courses and Certification

No courses as such. Object Oriented Programming and Data Structures & Algorithm are a plus.

Other Relevant Information

They were looking for motivated students (who they thought would join the company and are willing to learn) rather than highly skilled students. I had only a month's coding experience and was still able to clear the rounds. All one had to do was to show them that they are really fit for the job and willing to learn.

Sector: Consultancy & Analytics.

Name: AISHWARYA SHARMA (2013B2A4416P)

Company: CITIBANK

Profile: BUSINESS ANALYST

Recruitment Procedure:

· Online test, tech round, HR round

- · Test had 4 sections:
- 1. 25 questions based on C/C++/JAVA (will be asked to choose any 1 from these 3)
- 2. Numerical aptitude
- 3. Verbal aptitude
- 4. 2 coding questions based on the programming language chosen by the applicant

 \cdot Going back to previous questions was NOT allowed and each section was accordingly timed. The test was easy but a good speed was to be maintained throughout the test



· Questions asked:

1. Tell us about yourself

2. A few brain teasers and puzzles

3. Two simple coding questions were asked (if unsure of the syntax give them the logic to be applied for that question)

4. Questions based on your resume

Sources of Preparation

• https://www.interviewbit.com/courses/programming/topics/puzzles/

· www.indiabix.com

Courses and Certification

Nothing in particular but a quick recap of computer programming (CP) would be beneficial.

Sector: IT

Name: Aakash Juneja (2013B3A1549P)

Company: CITI Bank

Profile: Technology Analyst

- There were just three rounds in the process: Online Test, Technical Interview, HR Interview.
- The Online test had four sections:
 - o Objective questions on OOP and other logic questions.



- o Aptitude Questions
- o Logical Reasoning Questions
- o Two Coding Questions: Finding HCF and Minimal Path through a list of nodes.
- It is better to score high in the test as then the interview is scheduled earlier which really puts you at an advantage.
- The Technical interview was very basic. One needs only very basic knowledge of OOP: Abstraction, Polymorphism, Inheritence, Encapsulation. There were some puzzles and very basic coding question that we would do in CP lab.
- The HR people look for candidates who are confident and know their shortcomings. They appreciate people who know what they're getting into and why. So try to have some idea about the relevance of technology in the Financial sector.

Sources of Preparation: Honestly, I was not very well-prepared. But generally, in case you are interested in the IT sector, I would recommend InterviewBit for the preparation. Also read on the basics for OOP.

Other Relevant Information: I don't think that they're looking for the best coders. As an investment bank, they would always want confident people so yeah just say you want to learn and show that you're confident that you'd be able to match the performance levels of the best in the field.

Sector: IT/Analyst.

Name: Ashutosh Madhusudan Nemani (2014A1PS0536P) Company: Citi

Profile: Analyst



- 1. Online Test, Technical Interview, HR
- Test had:
 - a. Quant questions and Logical Reasoning Questions all MCQ.
 - b. Basic programming questions (MCQ).
 - c. To write code, they asked to write a function that returns the product of two matrices (dynamically allocated memory).
- For writing code 45 minutes were allocated and mcq sections for aptitude and programming comprised of 30 minutes each.
- 2. Interview
 - a. Puzzle- It was more about the thought process and logic rather than the answer. Make sure you verify all the assumptions with the interviewer.
 - b. Programming- They asked some basic algorithms like for sorting.

Sector: IT

Name: Vema Teja Krishna (2014A3PS166P)

Company: JP Morgan Chase

Profile: Technology Analyst

- Online test in Hacker Rank platform- 2 Coding questions and around 10 mcq questions on OS, Computer Architecture, DBMS, etc.
- Coding questions were not so tough, but brute-force methods will lead to timelimit.
- Three interview rounds
 - o Technical Round 1- They started from my resume, I had to explain about my project done in my internship at Axis Bank and then they tried relating my project to their work and then asked a few questions on that. Then they started asking questions on basic sorting algo's like Quick sort, Merge sort, one had to just explain the principle no need of writing the code/pseudo-code. Then a few questions on where to use which data structures like Stack, Queue, etc. Having knowledge about most of the sorting algo's and data structures can make you easily go through this round.



- Technical Round 2- They directly started with questions on sorting algo's and some tough questions like calculate square root of a number only using +, -, *, / and how to detect a cycle in a linked list, etc. It was for a very short time like 15-20 mins.
- o HR Round- It was almost just for a formality. They asked the candidates if you are really going to join JPMC and do you have any other company above JPMC in your preference.

Sources of Preparation

- Go through the principles of all the sorting algo's and different data structures, their applications and pro's and con's.
- Many of my friends felt that geeksforgeeks is a good source for pre-interview preparation.

Courses and Certification

• No requirements as such but they were looking for someone with some decent experience in coding or analytics related field.

Other Relevant Information

- Basics of any subject are crucial for any company's interview. I have never seen any interview where they go and ask hi-fi questions or even if they ask that they use that to shortlist you, so be prepared with basics for any interview you are going to attend let it be core, coding or anything.
- Be calm and relaxed during the interview and don't hurry anywhere, interviewers give you decent time to think and answer, so think completely before you answer. Be prepared with everything you have written in your interview, let it be anything your PS-1 project or your recent internship or some award in your school time, they can ask anything and you can't imagine how deep they can go on one point on your resume. Try to have some mock sessions with your friends to have some practice.

Sector: IT

Name: Siddharth Gupta (2014A3PS178P)

Company: JP Morgan Chase & Co.

Profile: Technical Analyst



Recruitment Procedure

- Online Test. Technical Interview. HR.
 - Test had 2 sections:
 - a. 10 MCQs 5 on logical and aptitude. 2 on probability. 2 on OS.
 - b. 2 Coding questions Both on array traversal and manipulation. Not very difficult.
 - Test was easy. Aim should be to complete the coding questions first and then complete about 5 questions from MCQs as they required time to solve. So first solve coding questions completely and then go for the MCQs.
 - Two technical interviews.
 - Questions:
 - Questions on OOP, Stable sorting. Control Systems. Dynamic programming. Implementation of queue using stack. Number theory – finding the repeated number in an array in O(n). They would focus on any part which you emphasize. Most of the questions were asked based on previous answers. First interview went for over an hour due to this. Have a clear head and tell the interviewer if you don't know anything rather than making stupid guesses.
 - b. Puzzle- They provided small hints if you hit a correct road. Ask about everything you can think of first and then start solving.

Courses and Certification

Operating system and OOP would be good. Also knowledge of Linked lists and data structures such as stack and queues.

Other Relevant Information

Have a feel of the subjects. It would be very good if you are able to provide your own perspective of subjects. For example, they asked me about four pillars of OOP. I talked about how I particularly found polymorphism interesting and powerful. That led to more questions on OOP concepts. It would also help you guide questions to topics which you're comfortable with.

Sector: IT

Name: Sidharth Talwar (2014A3PS237P) Company: JPMorgan Chase & Co.

Profile: Technology Analyst



- Online Test, 2 Technical Rounds, 1 HR Round
- Test had 2 sections:
 - a. MCQs based on code outputs, identifying errors in codes, probability and combinatorics questions, Operating Systems (Mainly deadlocks – Banker's Algorithm).
 - b. Two Coding questions The coding questions were very simple array based manipulations. One had to take care of base cases very carefully to run all the test cases.
- The test was conducted on Hackerrank.
- Technical Round 1 Questions:
 - a. Introduce yourself.
 - b. Started off with the languages that I knew. Questions on C++ and Java mainly out of all the languages that I mentioned. Then the subjects I was interested in. I said Machine Learning, Object Oriented Programming and Operating Systems.
 - c. There were questions on Data Structures. Questions on Merge Sort and certain modifications in the same. Questions on Binary Search. Questions on infix, postfix, prefix. Writing an interface in Java for implementing a stack and implementing a queue. Real world uses and applications of stacks and queues. Questions based on DFS and BFS in Graphs.
 - d. They asked me to highlight one of the projects in my resume that I thought was worth mentioning. I mentioned a project that was based on neural networks. They asked me to explain neural networks and then which data structure would I use to implement it, if I had no python libraries with me. Then they asked me to illustrate by taking examples



of training data set and show the flow of processes and write the pseudocode of how I would implement the backpropagation algorithm. Then they asked me about a few features of scikitlearn (I had used the library in few of my projects). If you have a finance-tech project or internship (I had an internship in the Finance-ML field), you should have a general idea about the non-technical aspect of the topic you were working on. They will test your ability to identify problems or your viewpoint on the finance aspect as well, because, in the job, need to analyse the problem and then develop the solution for it.

- e. There were questions on Operating Systems (I mentioned that as one of my favourite subjects). There were questions on Deadlock mainly, the conditions for deadlock, some modifications of the same. Questions about process scheduling, context switching and its overheads. Questions on process synchronization. They tested application skills more than theoretical skills by modifying elements in each problem statement.
- Technical Round 2 Questions:
 - a. Questions on projects. Modification of elements used in the projects to test the understanding.
 - b. Questions on Python as most of my projects were in Python. List comprehension and some other basic concepts in Python.
 - c. The discussion moved on to sorting techniques. A scenario of sorting was asked, the answer to which was insertion sort and then certain modifications of insertion sort were asked. Then a question on detecting a loop in a linked list and the finding the starting point of the loop. A question on reversing a string without traversing the entire string. Writing an efficient function to calculate a given power of a given number (Less than O(n) time).
 - Questions on basic OOP concepts Encapsulation, Inheritance, Polymorphism. Detailed discussion on method overloading and method overriding.



- e. One puzzle There are three boxes, all wrongly labelled 'Apples',
 'Oranges', 'Apples+Oranges'. You can take out just one fruit from any one of the boxes. You have to identify the correct labelling of the boxes.
- HR Round:
 - a. Tell me something about yourself.
 - b. Why do you see yourself a fit for the position we are offering?
 - c. What are you expecting out of this job and JPMC?
 - d. General explanation of work and work culture and what I can expect, about the CTC and the location of job, and finally giving me the offer.

- Geeksforgeeks is a must for interview questions and puzzles.
- You may solve OOP and OS MCQs from geeksforgeeks as well.
- Practice coding at interviewbit and hackerrank.

Courses and Certification

Questions generally asked from subjects you mention on your resume or the ones that you say you know, in the interview. OS OOP and DSA would generally be asked. Practice puzzles as well.

Other Relevant Information

The questions won't be too difficult but you need to know the concepts well to be able to answer any sort of modifications. They also test your soft skills and general awareness so you need to take care of that as well. Have an overview about the company before going for the interview.

Sector:IT

Name: Shashank R(2014A3PS171P)

Company: JP Morgan Chase & Co.



Profile: Technology Analyst

- ➤ Resume Short listing, Online Test, 2 Technical Interview, HR Interview.
- ➤ Online Test had 3 sections:-
 - Quant MCQ.
 - Computer Programming MCQ.
 - 2 Coding Questions.
- Test was easy, speed is important in quant, coding questions was simple and a bit tricky.
- ➤ Some questions asked in Technical Interview:-
 - Tell us about yourself.
 - They asked questions on the topics we were aware about.
 - The topics were C,JAVA/C++, DSA.
 - Puzzles:- Ability to solve puzzles quickly and accurately can be very helpful.
- Technical Interviewers was nice and accommodating. They were happy to provide hints and help us reach the solutions.



HR Interview was just to inform us that, they were offering us the job and to take our preference of cities (from Bangalore, Hyderabad and Mumbai). Most of the HR questions were covered in the Technical Interview.

Sources of Preparation

MIT video lectures on Introduction to Algorithms.

Bucky's JAVA Tutorial for Java Programming.

Courses and Certification

Computer Programming, Object Oriented Programming, DSA(if possible, I told them that I had self studied DSA).

Other Relevant Information

It is important to be honest in the interview, if you don't know something be open about. When they try to led you to a solution be open to their suggestions and show them you can learn quickly

Sector: IT

Name: Shubham Gupta(2014A3PS303P)

Company: JP Morgan Chase

Profile: Technology Analyst



- First round is online test on HackerRank platform. It consists of two coding questions and 10 MCQs. Coding questions were algorithm based and could be solved using maps easily. MCQs consists of aptitude, OS deadlock questions and algorithm based questions(like number of iterations to sort by bubble sort).
- Around 15 students were shortlisted for interviews. They took two technical interviews.

• In first round, a thorough discussion on internships, projects and position of responsibility was done. So, prepare your resume very thoroughly. He asked me to write code for merge sort and dry run on a given input. He asked me some puzzles. Ex- There are 1000 coins of Re. 1 each and you have 10 bags. You have to put these coins in bags and seal them in such a way that if given any number between 1 and 1000, the number can be made using these bags. He asked about basic pillars of OOP and basic Dynamic Programming concepts.

• 8 were shortlisted for second round. In second round, he asked concepts of virtual memory and cache. Then, he asked me to write a code to detect cycle in an undirected graph and asked to find the all paths and shortest path from source to destination. This interview took only 20 minutes.

• 6 students were called for HR interview. He asked why do you want to be in JPMC and what are my expectations. Then he offered me the job. 5 were offered job and 1 was kept on waitlis

Sources of Preparation

www.geeksforgeeks.org

interviewbit.com

Data Structures and Algorithms Made Easy, Narasimha Karumanchi

Academic courses mentioned in next section.

Courses and Certification

Data Structures and Algorithms

Object Oriented Programming

Operating Systems



Sector: IT

Name: Saumya Goel (2016H112160P)

Company: MathWorks

Profile: Technical Support Engineer – Engineering Development Group

Recruitment Procedure:

• First Round:

Online Screening Round- you will have to update your details on their portal, and a survey including some of the HR questions. Also, it includes a video recording, where you have to answer few of the HR questions- like what do you understand about the job role, why do you think you are right fit for this position, what is your CGPA, give a scenario where you did multi-tasking. They ask you to fill a minimum of 3 languages that you are comfortable with. Don't put any of the languages that you are not comfortable with because your next rounds will be based on those languages. It is not necessary that you know MATLAB (I have never worked on it). Almost all got shortlisted.

• Second Round: (Written) – 75 min

This included few MCQs on:

- Mathematics like pigeonhole principle, permutation-combination, probability etc.
- Computers basics of C, C++, Java- mostly output based questions, also make sure you are good at pointers.



Programming Question – 2 Question each on C, C++, Java (or Python/MATLAB – if you have selected any of them). All the questions were quite easy (Scale – 5/10)

- C Merging of string and returning that string as pointer, and one more question.
- C++ One question based on concepts of classes and to use the concept of ceil function without using Maths library. And the other question was on array arrangement.
- Java One question was based on function overloading and other was an array question on arrangement.
- Third Round: (Technical 1 hr Skype)

Java —

What makes Java platform independent as compared to C? What is the functioning of Garbage Collector and how does it work? Does it have concepts of destructors? Why and how finalized works? How is Finalized different from Garbage Collector? Some of the code snippet based questions to check understanding of inheritance and other concepts such as threads, exceptions. Interface and implementation of methods (using default keyword) in interface (multiple inheritance). New features of Java8 and discussion on lambda expressions.

• C –

Questions on pointers, code for 2D matrix using pointers, and some other code snippet based questions. How code is compiled in C, with all the details about their stages (Pre-processing, Linking, Loading, Assembly language code, Machine code, etc.)

C++ -



Null pointers and their uses, pure virtual function, virtual function, static member functions, function overloading, runtime polymorphism, malloc and calloc, size of operator, pointer arithmetic, virtual base class, memory leaks, delete array in c++ using delete, static and dynamic memory allocation, vptr and vtable, object slicing, and tricky output question on object referencing.

OS-

The concept of threads - what resources do threads share amongst themselves and what they don't share? Race Condition, user and kernel modes, virtual memory management and paging

Design Question –

Interviewer gave a scenario and asked to give the design solution based on oops concept to implement it. I gave a solution using Design Patterns and he was happy with it.

• Fourth (Managerial) and Fifth (HR) Round-(1 hr each)

Both included almost similar lines of questions. Also, it went more like a discussion round rather than an interview, so be confident what you answer and have a scenario from your past experience for whatever you say.

- Tell me a situation when you did multitasking?
- How would your guide evaluate you?
- How would you evaluate your guide?
- How would you rate yourself in your previous technical interview?
- How would you handle an upset project partner?
- How would you handle conflict in your team?
- Explain me about the profile you are going to apply? What do you understand about the profile?
- What initiative you have taken without being asked and it didn't go well?
- What initiative you have taken without being asked and it ended successfully?



- How did you convince your manager for any initiative you took? What all challenges, did you face?
- Tell something positive and negative about your previous organization?
- Why MathWorks?
- What is Mathworks for you? Describe profile?
- How did you prepare for your interview?
- Are you giving any other interview today?
- For how many companies you have been interviewed?
- What was the name of previous interviewer? (Always remember this)
- Why did you leave your job?
- Why your college has two different branches, Software Systems and Computer Science? How do you think you are ahead of another branch?

GeeksforGeeks. Be comfortable with Hackerearth and Hackerrank Platform.

Courses and Certification

Data structure and algorithm, Operating Systems, Database Systems, Object Oriented Programming and Computer Networks.

Sector: IT.

Name: Kush Agarwal (2014A8PS419P). Company: Sling Media. Profile: Software Engineer. Recruitment Procedure :

Test Round : The Test was hosted on cocubes platform. Test consisted of 60 questions, 30 out of which were technical and 30 were aptitude. Technical section consisted of questions from operating systems and some part of microprocessor. Some of the questions were : To find the number of page faults using LRU given page frame size and order, Process information at times were given and we had to check for deadlock, Some pseudo codes to predict the output (c++), <u>http://www.geeksforgeeks.org/gate-gate-cs-2013-question-46/</u>, etc. Sectional cut-off was there along with negative marking.



- Interview round 1 : This round started with the resume projects then moving to operating systems (Memory hierarchy, Paging, Deadlock, semaphore, context switching). Some basic coding questions such as to find the transpose of matrix, Sudoku checker(Not solver). Two puzzles , one was http://www.geeksforgeeks.org/puzzle-7-3-bulbs-and-3-switches.
- Interview round 2 : This round mostly consisted of oop portions like defining a class and object in c++. Implementing Queue as class.

Geeksforgeeks, Lecture slides.

Courses and Certification

OS, OOP, Mup(Basics), DSA, Computer Architecture basics(Pipelining).

Sector: IT

Name: Sarita Sharma (2016H112163P) Company: Toshiba Embedded Software Profile: Associate Software Engineer Recruitment Procedure

1. Online Test:

- Duration: 75 min
- Test consisted of 3 sections:
- Section 1(20 questions): C/C++ output and debugging questions and questions on database, OS etc.
- Section 2(50 questions): Aptitude
- Section 3(1 question): Coding Question

2. Technical interviews:

Questions were mostly based on Data structures (linked list, queue, stack, heap, trees etc.)

- Some of the questions are:
- Questions based on C language
- Various sorting techniques and when to use which
- Stable and unstable sorting and there applications
- Depth of tree
- Binary tree
- Various design patterns and he asked me to draw UML diagram for Factory pattern
- Various levels of cache
- Trie and its application
- Asked to solve some aptitude questions
- Questions on bit manipulation
- Develop the test cases for a scenario based question. The test cases should cover all possible cases and boundary conditions. Then he asked me to provide algorithm to solve the problem and write pseudo code for it. He tested my code on all the test cases.

Geeksforgeeks, interviewbit

Courses and Certification

C, C++, OS, Data Structures

Sector: IT

Name: Lakshit Agrawal (2013B4A3744P) Company: Toshiba Profile: Associate Software Engineer Recruitment Procedure:

- Online Test: 3 sections
 - 1. Aptitude (15 MCQs) Quant, DI and verbal questions. Difficulty level was moderate. 4-5 online practice sessions would suffice for preparation.
 - 2. Programming (15 MCQs) C language concepts. Majority of the questions were to find the output of a given code.
 - 3. Coding 2 coding questions. A candidate preparing for IT sector would crack them easily.



- Technical Round 1 This round involved discussion around the projects completed followed by around 20 aptitude questions (very basic quant: time & distance, mixtures, ratios, quadratic equations, probability, PnC).
- Technical round 2 (Coding & Puzzles) Asked to write simple codes in C. #Find the maximum number of 1s the result can have when you are allowed to flip all bits of a given interval (limits say 0-3) from a 16 bit binary string.

Most of the puzzles were from this page.

<u>http://www.geeksforgeeks.org/puzzle-1-how-to-measure-45-minutes-using-two-identical-wires/</u>

• HR Interview – Questions like "Where do you see yourself in 5 years", "What do you want to pursue", "How is your background relevant for our profile". Resume based questions.

Sources of Preparation: C programming basics and puzzles from any online source. Aptitude from CAT material or online.

Courses and Certification: None in particular. A higher CGPA might be helpful.

Other Relevant Information: Toshiba is mainly looking for candidates who can code in C with a pre-defined writing style and format specified by the company (to avoid extensive testing).

In interviews main focus is on problem solving ability, motivation to solve, logical reasoning, how structured the approach is. They always look for a different approach to solve any puzzle. Extremely good coding skills are not required. They just expect you to know syntax of C and basic coding.

They need to be convinced that you are motivated to work with their firm and do not wish to go for higher studies or any other field.

Sector: IT

Name: Yogini Naik (2016H1030067P) Company: Deutsche Bank Profile: Graduate Analyst - Technology Recruitment Procedure



- <u>Online test:</u> It consisted of technical MCQ's and two programming questions based on strings and arrays. MCQ's were from varied CS subjects. Coding questions were dependent on logic formulation and optimization. Time given was sufficient to complete entire test. However, coding questions need to be completed because they evaluate your interview rounds by taking into account your performance in coding.
- <u>Round 1: Technical based on resume and design questions:</u> Here, knowledge of your projects is very important as you have to explain your projects in detail. Whatever questions they ask on projects need to be answered including any mathematical equations, algorithms used, block diagrams and so on. Design questions based on certain banking scenarios were asked. Finally, HR questions like strengths, weaknesses, why left your previous job and so on were asked.

• Round 2: Technical:

- What are databases and what is hashing?
- Is data storage and database same?
- What is sieve of Eratosthenes?
- Logic to find least common ancestor in a BST.
- What are differences between arrays and linked lists and where are they used?
- Give an optimal data structure for a given scenario.
- Design question on distributed systems- how to solve the handshake problem?
- What is CAP theorem?
- Difference between TCP and UDP, http and https, public key cryptography.
- Again questions on projects and explanation.
- **<u>Round 3: Technical + HR:</u>** Project explanation, basic questions about yourself. Finally puzzle was asked: 25 horses and 5 track race. The interviewer helped me solve the problem and basically wanted to check how I approached the problem.

Sources of Preparation:

- Coding: InterviewBit
- Data structures: GeeksForGeeks and Karumanchi



Courses and Certification

Depends on your electives : if they are relevant to the banking industry such as Cloud computing, then they would ask you very specific questions.

Other Relevant Information

You need to know why you would prefer banking industry, how can the current trends in technology such as SDN, Machine Learning be advantageous for banking industry. Also, they keep a cumulative score right from the first online test round, so make sure to portray yourself as more technology oriented rather than just banking oriented.

Sector: Banking&Finance Name: Devamalya Hazra (2016H112169P) Company: Deutsche Bank Profile: Graduate Analyst-Technology Recruitment Procedure

- Online Test
 - Conducted in HackerRank.
 - Consisted of two portions :
 - Technical MCQs based on Data Structures, Algorithms and Discrete Mathematics (No negative marking).
 - Coding Problems (2)
 - Given a number count the ways to express the number, as a sum of consecutive natural numbers. <u>http://www.geeksforgeeks.org/count-ways-express-</u> number-sum-consecutive-numbers/



- Given a string of length n, find the number of indices

 in the string for which substrings (0,i-1) and (i+1,n-1)
 are *Programmer* strings. A programmer string is one
 that contains the all the letters of the word
 'programmer' (in any order). For e.g.
 'mnrpohgorammler' is a programmer string.
- Interview Process
 - **Round 1**: I was mainly asked questions from my projects. The interviewer scanned through my resume and asked me to explain my projects one by one. For each project of mine, he gave me some real-life challenges, and asked me how I would handle them if my project were to be deployed. [For. e.g. one of my projects involved building an inverted index from a series of text files. In doing so we had filtered some commonly used stop-words from the raw data by tokenizing the lines on the basis of common delimmeters. He wanted to know what kind of data structure we would have to use, if we wanted to use hyphenated words (like vis-à-vis or tete-a-tete) since, my algorithm would treat tete-a-tete as three separate words. I suggested the usage of trie data structure and he seemed satisfied with my answer.]
 - **Round 2** : This was a technical cum HR round for me. I was asked to draw the DFD and Sequence Diagram for one of my projects, and this round led to an in depth discussion on the technolgies used in my project, and the reason behind the choice of those technologies. I was asked questions on Big Data, Hadoop, the Map Reduce Framework, CAP theorem and its implicitons, SQL and NoSQL databases. He gave me a puzzle to solve [You have 10 identical looking balls, out of which 1 is heavier than the rest. Given a weighing scale, find the minimum number of comparisons that needed to be done to find the heavy ball]. A slight variation of the binary search helped me to solve the puzzle.

Some general HR questions were asked including my hobbies, reason for pursuing M.E. and whether I was willing to relocate.



Since my second round was a combined round, I did not have a third round like the other candidates. I was expecting a call for the third round, when they offered me the job. A total of **4** students were selected.

Sources of Preparation

GeeksforGeeks InterviewBit Herbert Schildt-Java Complete Reference Courses and Certification

I had electives like Cloud Computing, and Network Security. I was also an Oracle Certified Associate Java (SE7) Programmer.

Sector: IT/ Analytics

Name: Koushik Bose (2016H112162P) Company: Deutsche Bank Profile: Graduate Analyst- Technology Recruitment Procedure

Online Test

The online test consisted of 2 coding questions.

Q1) Count the number of ways to express a number as sum of consecutive numbers. Given a number N, find the number of ways to represent this number as a sum of 2 or more consecutive natural numbers.

Q2) Programmer String (String containing all characters of the word programmer).

Technical Round 1

This round lasted for about 40-50 minutes.

Questions:



Tell me about yourself.

Explain Map-Reduce. Explain Inverted Index.

Explain Infrastructure as a Service cloud model. Explain about Node Cluster, Cluster Controller, Cloud Controller and their functionalities. Explain about the Scheduling algorithms used in the IaaS cloud model.

What is Hashing? Explain open addressing and closed addressing hashing techniques in DBMS. Explain difference between them. Explain collision resolution techniques in hashing. Explain clustering.

Explain Decision Tree, K-Nearest Neighbours classification techniques used in project.

Technical Round 2

This round also lasted for about 40-50 minutes. More Questions were asked about projects.

<u>Questions:</u>

- Detail explanation about Android Application Project. What tools were used? Why Those Tools? Anything design decisions that I wanted to change in the project.
- Explain about Java Collection Framework and the methods.
- Implement Singleton Pattern in Java.
- Explain Critical Section, Semaphores and its Types. Difference between Binary Semaphore and Mutex.
- Normalize a given table till BCNF.
- Differences between B tree and B+ tree.
- Why do we need AVL tree? Convert a given Binary Search Tree into an AVL tree.

HR Round

Puzzle:



There are 25 horses among which you need to find out the fastest 3 horses. You can conduct race among at most 5 to find out their relative speed. At no point you can find out the actual speed of the horse in a race. Find out how many races are required to get the top 3 horses.

Other Questions

- What is your biggest strength?
- How do you handle conflicts in the team?
- Why M.E. after MSc ?
- What do you know about Deutsche Bank?

Sources of Preparation

- 1. Operating System Concepts, written by Peter B. Galvin.
- 2. Fundamentals of Database Systems, written by Elmasri Navathe
- 3. Classic Data Structures, written by D. Samanta
- 4. Java: The Complete Reference, written by Herbert Scheldt
- 5. <u>https://www.interviewbit.com/</u>

Courses and Certification

Operating System, Database Management Systems, Object Oriented Analysis and Design concepts were very helpful.

Sector: IT

Name: Bhavna Rana (2016H112171P) Company: Deutsche Bank Profile: Graduate Analyst

- Online Test:
 - 1. Online test had 2 programming questions, one on string manipulation using arrays and other on number arithmetic which included the concept of permutation.



- **2.** MCQ's on c, c++, java code snippets, OS, data structure, database.
- 3. Do not forget to check in instructions if there is negative marking or not.

• Technical Round 1

- 1. Tell me about the courses that you have done in BITS, Pilani.
- 2. Write a Program to form a linked list of structure Employee, Insert records at rear, sort the linked list using quick sort;
- 3. What is Union and why is it used.
- 4. Why did you leave your previous company?
- 5. Basic difference between call by reference and call by value, how is hashing done using call by value or call by reference? Time complexity for the same.
- 6. Hash code generated by hash function is hexadecimal or binary?

• Technical Round 2

- 1. Introduce yourself.
- 2. Why did you leave your previous company?
- 3. Why did you decide to go for higher education?
- 4. Asked about the Division I was working in (I was working in FAD), MVC framework and why MVC? What is the flow of control when a web-form application starts running? How is NoSQL different from Relational database system?
- 5. How is insertion done in BST, how to balance the height of BST?
- 6. Can binary search be done on Singly Linked list? What is the time complexity?
- 7. Normalize the give table? 1NF, 2NF, 3NF examples?
- 8. Graph traversal, DFS and BFS.

• HR Round

- 1. Where do you see yourself after 5 years?
- 2. Asked about what my professional goals are?
- 3. Horse race puzzle, 25 horses, 5 tracks, find top 3 fastest horses?



- 4. Exception handling in java?
- 5. New features of java8?
- 6. Patters and software life cycles.
- 7. Explain "No modification, only enhancement" rule, importance?
- 8. Why Deutsche Bank?

- 1. Geeks for Geeks for Data Structure and Algorithm, practice the programming on HackerEarth or HackerRank as they are mostly the platforms used to conduct tests.
- 2. Database, OS, CN, Computer organistion(standard textbooks) , C, C++(Yeshwanth Kanethkar), java(Java: the complete reference), SQL(Geeks for Geeks).
- 3. Practice aptitude(Geeks for Geeks), Day one companies don't focus on aptitude but after that it will get very tough as there will be no time to work on it.
- 4. Refresh your current subjects, projects, anything that you have mentioned in your resume.

Courses and Certification

- **1.** Cloud Computing
- **2.** Information Retrieval
- **3.** Software for embedded systems
- 4. Real time systems

Other Relevant Information

- 1. Don't practise programming on multiple platforms, choose one that gives you good test cases and also has time complexity criteria to judge the coding(HackerRank or HackerEarth).
- 2. Prepare for HR round with your friends, practising how to speak and what all to speak. Common HR questions, such as, tell about your weakness, tell about a failure and how did you overcome it, your strength, one bad thing about yourself, how did you prepare for this interview etc.
- **3.** Sequence your best project on top in the resume and be through with it, also keep multiple resumes ready according to the job profiles offered by companies.

Sector: IT



Name: Rishabh Agarwal (2013B5A3780P) Company: Wipro Profile: Project Engineer

- Online Test, Technical Interview, HR
- Online test was divided into two. First test had two sections quant and verbal and both had sectional cut-off.
- The second test was coding test and consisted of two problems to be solved.
- Questions:
 - 1. Tell us about yourself.
 - 2. Follow up questions from what you answer.
 - 3. Be confident on your resume points. I was asked questions on entity diagrams and OOP related questions as I had mentioned OOP and OS as my electives.
 - 4. Puzzle- They care more about the thought process and logic rather than the answer. Have a structured approach to solve the problem and don't guess or make assumptions. Ask for clarifying information if necessary
 - 5. You should be clear on why you want to join that particular company and convince the recruiter. Having a core profile does not matter as they are looking for people who can better fit into the organization.
 - 6. Why Wipro?



- 7. Why not go for Masters?
- 8. What are your hobbies?
- 9. What is the most challenging situation you have faced (Academic as well as non-academic)?
- 10. Answer to these questions honestly (6-9). Sometimes, honesty pays.

- Prepare interview puzzles from Geeksforgeeks.
- Coding questions could be done if you have basic knowledge of programming.

Courses and Certification

• No subjects as such but If you mention any subject in your resume then prepare that well.

Other Relevant Information

• You should be able to explain each and every point on your resume and be confident about them. If your project had any loopholes which you rectified later, mentioning those could earn you bonus points sometime.

Sector: IT

Name: Arnab Mitra (2014A1PS671P) Company: Wipro Limited Profile: Project Engineer/Analyst Recruitment Procedure

- The process had 3 rounds in the order Online Test, Technical Interview, HR Interview
 - The Online Test was conducted in 2 parts Aptitude and Programming
 a. Aptitude round consisted of 2 sections Verbal and Analytical.
 Verbal section consisted of sentence completion, synonyms-antonyms, and questions based on given passages. Analytical section consisted of Logical reasoning, interpretation and quant questions. Level of questions were on the easier side and time was sufficient.
 - b. Programming round consisted of 2 questions to be coded in C/C++/Java/C# with time limit of 45 minutes. No provision to input custom cases.



First question was elementary, based on loops and array. Objective was to obtain the sum of all numbers that divide all the elements of the array. Second question was based on finding the maximum product of any subarray in the given array. Extra points were given for submitting code which was optimised in terms of space and time.

- Technical interview lasted for around 45 minutes and started with all projects on the resume, detailed questioning on all obtained results, internships and key takeaways from the same. This was followed by pattern based programming question, and logic puzzles. They care more about the thought process and logic rather than the actual syntax, so a structures approach and a clean logic is important.
- HR interview had basic HR questions like tell me about yourself, hobbies, where do you see yourself in 5 years, greatest achievements, strengths and weaknesses. Both interviews were very friendly and conversational in nature. They check for confidence along with problem solving aptitude.

Sources of Preparation

Basic knowledge of programming questions on SPOJ or Codechef should suffice for the programming round as well as the technical interview. For specific topics, GeeksforGeeks and Stack overflow can be used. Logic puzzles can be practiced from InterviewBit. **Courses and Certification**

No specific subject knowledge required apart from basic programming. However, courses such as OOP or DSA can be an added bonus in the interview.

Other Relevant Information

The overall process is not very difficult and basic technical knowledge is sufficient. The candidate needs to convince the interviewer that he/she would be a long term employee and be able to fit in , in an IT profile.

Sector: IT.

Name: Aseem Sindwani (2014A4PS312P) Company: Wipro Technologies



Profile: Project Engineer

Recruitment Procedure:

- Rounds: Online Test, Technical Interview, HR.
- There were 2 parts in the pre-interview test. 1st part is aptitude, 2nd part is coding round.
- Aptitude consisted of English and basic math problems.
- The coding round required you to submit a running correct solution. My question was to find the transpose of a given matrix. I was allowed to use Java, python or C, C++.
- After clearing the test, there were rounds of technical interviews where the interviewer asked me to write some code for simple problems. The question was based on String processing and basic string operations without using any in-built library.

Sources of Preparation:

- Interviewbit
- GeeksforGeeks

Courses and Certification

OS, OOP, DSA

Sector: I/⊤

Name: HARSH SRIVASTAVA

2014A2PS769P

Company: Western India Product Limited (WIPRO) STAR

Profile: IT/DATA ANALYST



- Resume Shortlisting, Aptitude Test, Interview-Technical and HR
- Test had 3 sections:
 - a. Verbal- Finding the error, one based on a short passage, including the type of question which was to identify if the given statement can be inferred from the passage or not, Synonyms and Antonyms(1 each), Rearranging the order of the statement to make it meaningful, Substitution for the part of the statement containing error, etc.
 - b. Quantitative Aptitude and Analytical & Logical Reasoning.
 - c. Coding based Questions only after submitting first two. Two Coding Questions with the time limit of 60 minutes and language allowed for coding was C, C++, JAVA, C#. The toughness level could be 2 and 3 for the two questions.
- Test was easy to moderate. However, it is important to maintain speed to finish all questions. Going back to previous questions was allowed. No negative marking. However, sectional cut-off was for each section.
- Verbal and Quantitative + Analytical & Logical was combined with 60 questions in 75 minutes.
- Questions (Interview):
 - a. Tell us about yourself (be prepared as it determines the start of every interview)
 - b. Follow up questions from what you answer
 - c. Puzzle- They care about the thought process and logic along with the answer. Technical will start with your Resume and specially your projects even if it is not related to IT and is specific to your discipline. Once Resume judgement is over, then starts IT technical part. This would depend on your Interview so far, it may start with puzzle, or it may be to write Pseudo code or just explaining the logic. (Try to make good impression at the first place itself).
 - d. The level of the question in Interview would be progressive (simple to hard as you answer). It won't be too difficult as they give enough time to break the logic and no pressure.
 - e. It is friendly and you get enough room to express yourself. They won't cut you in between tour answer. The Technical round ends with HR type questions like: How would you adapt to the location? Is it a problem? What if language you know becomes obsolete?, etc.
 - f. HR round will be after you clear technical, and is mostly behavioural and is linked with your technical round. Feedback send from technical panel is present with HR. It would be easy.
 - g. The duration of the Interview may range from 30 minutes to 1hour 15 minutes.



<u>https://www.glassdoor.co.in/Interview/Wipro-Interview-Questions-</u> <u>E9936.htm</u> <u>https://stackify.com/oops-concepts-in-java/</u> <u>http://placement.freshersworld.com/wipro-technical-interview-</u> <u>questions-and-answers/33122073</u> <u>https://www.tutorialspoint.com/</u> <u>http://www.geeksforgeeks.org/wipro-recruitment-process/</u>

Courses and Certification

No subject as such. If done would give you an edge. Any project related to coding even if it is nominal would be helpful.

Other Relevant Information

Coding skills required for this are on the same lines as other company's test and would help you in other tests based on coding. The overall Interview experience would be adaptive and progressive and there is pressure test as such in the process. Feel free and be confident.

Sector: IT/ET

Name: Hardik Mittal (2013B2A3026P) Company: WIPRO, Bangalore

Profile: Project Engineer

- Online Test, Technical Interview, HR Interview
- Online test was split in two sub evaluations
 - 1. Aptitude and Verbal Evaluation
 - 2. Coding Test



- Test was easy but required proper time management and speed in calculation.
- Technical Interview was based totally on resume and projects mentioned. Questions asked on projects were to be answered in detail with every minor specification.
- In Technical Interview following questions were asked:
 - 1. Tell me something about yourself.
 - 2. Why opted for dual degree and chemistry.
 - 3. What motivates to coding.
 - 4. Experience in Ps, what was your contribution and how was task executed.
 - 5. Any group activities performed by as a leader, and how were problems tackled.
 - 6. Future plans.
 - 7. Some questions related to electrical and electronics.
 - 8. Interviewer gave a problem in C and was asked to explain the logic for implementation.
- HR interview was based on general HR questions like:
 - 1. Tell me something about yourself.



- 2. What is your family background?
- 3. Why want to opt for job not business.
- 4. What motivates you.
- 5. Work and experience as group leader.
- 6. Explanation of POR.

- Previous years Core PPTs
- Geeks for geeks Interview questions.
- Fresh2refresh.com for C concept
- PU chronicles

Courses and Certification

No specific requirements. Just basic coding knowledge and command on at least one coding language.

To excel would suggest courses like OOP DSA OS Computer Architecture

Other Relevant Information

Interview was based totally on command over current knowledge and previous courses done.

Sector: IT & Consultancy. Name: Vishwajeet Singh Bhadoria(2016H103073P) Company: CGI Group

Profile: Associate Software Engineer



Written Test:

It was on AMCAT platform. The test had 5 sections

1. Aptitude

2.Verbal ability

3.Coding

4.Reasoning

5.Data interpretation

overall the test was easy

ROUND 1: Technical interview

OOPS concepts were asked, DSA, Projects, Implementation of Stacks and Queues.

ROUND 2: Technical + HR

DBMS concepts i.e primary key, foreign key, Normalization, and few basic HR questions

ROUND 3:

In this round I had to made 2 videos of myself... first one on about myself and second one on about my role models and also a PPT on any new technology.

Sector: ET



Name: Rahul Singla (2014A3PS236P)

Company: Texas Instruments

Profile: Embedded software engineer

- Rounds Online test, Technical Round (number may vary according to performance), HR
- Online Test : The set of questions varied according to the profile you chose. For software profile, the test was broadly divided into two parts- general aptitude and basic C programming questions. It consisted of total 40 questions- 20 aptitude and 20 programming. There was enough time to complete the test but the test demanded high accuracy. (+1 for correct and -0.25 for incorrect).
- Technical Round: (The major portion of interview was based on)
 - 1. DSA- basic question to check your ability to code simple stuff (e.g. counting sort).
 - 2. OS basics should be very clear. You can expect questions such as what happens when we call a method. (OS perspective)
 - Bit manipulation- typical question on usage of binary operators such as how to return 2ⁿ number given the value of n w/o using library or multiplication. (Hint – use left shift operator)
 - 4. Digital Electronics This was the area they tried to really test me. I had no knowledge of DD and I told them so. Then they taught me DD concepts and checked if I could build on the concepts that I just learned.
 - 5. Project



The interview was focused on the capability of interviewee to be able to solve completely new problems. Their main focus wasn't on how much prior knowledge I have but the ability to think upon a completely new concept. This is generally the case with all IT companies too.

Sources of Preparation

- Online Test India Bix
- Technical Round OS & DSA (GeeksForGeeks)

Courses and Certification

OS, OOP, NNFL, DM

Other Relevant Information

- HR round will be pretty much standard.
- After Online test, 8 students were shortlisted for software profile. I was the only guy who was offered that profile after one technical and HR round.

Sector: ET

Name: Satyam Sinha (2014A3PS164P) Company: Texas Instruments

Profile: Analog Design Engineer

Recruitment Procedure:

There were four rounds:

1) Online test:

Aptitude – 20 questions, 30 minutes; although easy, some may be time consuming such as double line up problems Analog - 20 questions, 45 minutes; questions from RLC circuits, Analog Electronics, MuE, BJTs, etc.

2) Technical Interview (2 rounds):

Both the rounds focussed a lot, in fact almost entirely, on RC circuits, finding out poles and zeroes, bode plots, response to step/ramp/sinusoidal inputs; all INTUITIVELY! Your problem solving approach is what will be judged by the interviewers, speak out your thoughts aloud to them, that's quite important.



3) HR : Primarily focussed on the non-technical aspect of the resume, also on what led me to my interest in analog domain, try to show them that you are a promising candidate, and eagerly looking forward to joining them

Sources of Preparation

- **1)** Fundamentals of Electrical Engineering (Bobrow) (ES textbook) covers basics of almost everything
- 2) Try simulating random RLC circuits with voltage/ current sources on LTSpice; along with their frequency response as well as response to step/ ramp/ sinusoidal inputs, it will really give you an intuition into guessing the output; helped me quite a lot

Courses and Certification

Analog Electronics, MuE, ADVD, Control Systems; Frequency response, poles and zeroes are very important!

Sector: ET

Name: Prince Goyal (2014A3PS229P)

Company: Texas Instruments

Profile: Analog Engineer

Recruitment Procedure

Online Test:

- Section-1 20 Aptitude questions (Data Interpretation + Quant + Verbal)
- Section -2 20 technical questions.



Technical interviews:

Round -1:

- RC circuits were asked for most of the part. Intuitive analysis is extremely
 important, you must be able to calculate poles and zeros without any
 mathematical calculations (at least for 1st and 2nd order RC circuits). Understand
 zeros and poles physically. You should know how to plot graphs (time-domain)
 when a step response is given. Question related to "Barkhausen criteria for
 feedback oscillator" were also asked. Few basic questions related to op-amps
 were discussed in the end.
- 6 students were shortlisted after Round 1.

Round-2:

Precision Circuits, Clippers and basic multivibrators were discussed in my second interview. Bode plots, zeros and poles on s-plane analysis and their physical understanding is important.

HR Interview:

If you are selected for HR interview, then you are almost in unless you screw up badly in HR. Apart from Standard HR questions, few situational questions were asked in HR interview.

Sources of Preparation

- For Analog profile, courses like Analog Electronics and RC circuits analysis is enough.
- Bode plots, Frequency response and Time-Domain analysis from Control Systems.
- Basic Knowledge of Microelectronics and ADVD.

Courses and Certification

No special course is required for Texas instruments. They ask very basic questions, you just need to be clear with the basics.

Other Relevant Information

Interviewers just wants to check how to approach a problem. Always speak whatever you are thinking and ask for a hint if you are stuck some somewhere or you see something completely out of the box. Try to explain everything on paper of what you are thinking. Keep the interview to be interactive. Stay confident and smile throughout the interview.

Sector: Electronics (ET)

Name: Tanya (2016H1400105P)

Company: Qualcomm

Profile: Hardware Engineer

Recruitment Procedure

- Written Test, Two Technical , HR
- Written Test had 3 sections:
 - Ist section: Aptitude
 - It included data interpretation, logical reasoning, time and work, pipes, distance and speed, verbal.
 - b. Ind section: C programming

It included output questions, error finding, true false.

c. IIIrd section: Digital

It included topics like digital design, Microprocessor (8085 & 8086), 8051 microcontroller, VIsi, EDC

- Test was not that easy. Aptitude section was quite difficult. It is important to maintain speed to finish all questions. Each section was for 30 minutes. Going back to previous questions is not allowed.
- Ist and lind Technical interview :

Blocking and non blocking assignments, two questions on setup and hold time, fsm, mealy moore difference, basic concepts from vlsi cmos Be thorough with for projects.

- Be thorough with for projec
- HR Questions:
 - a. Tell us about yourself
 - b. Why Qualcomm?
 - c. Why Hardware profile?
 - d. What if we send you to Chennai?

Sources of Preparation

• For aptitude



Refer solving questions from IndiaBix, Books: Arun Sharma, Arihant Fast track

- For C programming Refer to Geeks for Geeks, IndiaBix, Test your C skills
 For Digital section
- Refer to gates notes, Morris Mano, Cmos from Kang and Rabaey
- For Interview: Refer to Kang for Cmos, Morris mano for digital, Static time analysis is very important to be done from vlsi-expert.com

Sector: ET

Name: Aditya Ukarande (2014A8PS441P)

Company: Qualcomm

Profile: Associate Engineer

- Online Test, 2 Technical Rounds and HR
- Test had 3 sections:
 - Aptitude: Too lengthy, do fast.
 - o Computer Science: C, OS, OOP, DSA, Computer Architecture
 - Electronics: DD, 8086 memory read access pins, 8051, bipolar SRAM.
 - 1st Interview: (Just smile and Wish him Good Morning) (Easy)
 - Find maximum frequency for a (FF->Combinational->FF) circuit use setup time. Definition of setup and hold time.
 - Make a 2 input NAND using XOR gate. (Trick question explained him XOR is not a universal gate so can't be implemented and XOR can't distinguish between 0,0 and 1,1 as inputs.)
 - Asked which ones are universal gates?
 - What are the basic gates?
 - Can whole circuit be implemented using not gates?
- 2nd Interview: (Easy)
 - Explain your project at University of Southern California.
 - 8086 block diagram (didn't remember) Asked if I have done a course on 8086 I said yes – Don't lie here.
 - 8086 no. of data lines and address lines (16 and 20)
 - What is an interrupt?

- What happens when interrupt occurs? (Explained ISR) he was asking more so told flag registers and program counters are pushed on stack.
- Types of interrupt Hardware(NMI) and Softwar
- eStarted asking DD gave 4 whole clock cycle implement in each clock cycle a different operation (A+B, A*B, A-B, A^B) sequentially. Did using counter and 4:1 mux. Asked for a more simpler design. Couldn't think of any other implementation at that time.
- Asked the final question about divide frequency by 3. Asked him what duty cycle he wants? Did using 3 flip flops.
- Asked why I was using only 2 flip flops for 3 states. He said why not 3 flip flops. Answered him if he wants one hot assignment. Then asked me about its advantages
- HR:
 - Asked where am I from?
 - Asked me about my USC project, was it a teamwork?
 - I had IoT review paper in my resume. Asked how would I implement IoT in Pilani and where?
 - Asked me that you must have seen better infrastructure in US. Why not MS?
 - Offered me biscuits... took one (don't refuse).
 - Asked if I want to ask him some questions I asked:
 - What would be my role as I was asked majorly on DD and 8086?
 - If internal project transfers are possible?
 - Does he take any location preference? Gave him Bangalore and said I am fine with any location.
 - Have a nice day and Thank you

Rabaey, Mano, PU Digital material, Tutorial point

Courses and Certification

Advanced Computer Architecture, Computer Architecture, DD, MuP, ADVD, knew about NoC because of project.

Other Relevant Information

Just smile all the time and handshake at end with "have a nice day".



Sector: ET

Name: Eshan Tyagi (2014A8PS445P)

Company: Qualcomm, Bangalore

Profile: Associate Engineer

Recruitment Procedure

- Resume Shortlisting, Online Test, 2 technical rounds, 1 HR
- Online Test had 4 sections:
 - a. Aptitude 20 questions in 30 minutes
 - b. C based output questions
 - c. Electronics / Communication / Software We had to choose one of these three sections.
- Test was easy. However, it is important to maintain speed to finish all questions. It is important to be thorough with the use of pointers in C and their outputs.
- Technical Interview Round 1
 - a. Tell me about yourself
 - b. What is an FSM and how would you implement it in C/C++?
 - c. Given a range of numbers from 1 to n where each number can occur >= 0 times, sort the numbers.
 - d. Which topic do like in OS? This was followed by a discussion in that topic.
- Technical Interview Round 2
 - a. Tell me about yourself
 - b. Discussion upon the work I have done during my Internship.
 - c. Discussion upon my projects.
 - d. What is a DAC?
 - e. Modulation and Demodulation
- HR Interview
 - a. Tell me about yourself.
 - b. Discussion upon the work I have done during my Internship.
 - c. Why Qualcomm?
 - d. Why not MS, followed by Why not GATE?
 - e. About my family.



Sources of Preparation

Geeks for Geeks – Interview Experiences, Company / Topic Wise Questions.

Courses and Certification

Data Structure, Algorithm and Operating System is a must. Knowledge in Communication System gives you an added advantage over others.

Other Relevant Information

During the interview, remain confident and try to come up with an approach even though you don't know the answer. Make sure you ask relevant questions to the interviewers – technical in case of Technical interview and in general – About the Company to HR. This shows your interest towards the company. Know the type of work you would be doing if you get selected.

Sector: ET

Name: Naman Gupta (2014A8PS522P)

Company: Qualcomm

Profile: Associate Engineer (Hardware)

Recruitment Procedure:

- Online test: [1.5 hour] Comprised of three sections:
 - 1. General Aptitude: (20 questions/30 minutes) Questions were of moderate to difficult level. Practice data interpretation questions.
 - 2. Basic C programming: (20 questions/30 minutes) Questions were easy and most of them required to find the output of a code snippet and to determine errors in some parts of code. CP course taught in first year is enough.



- 3. Electronics: (20 questions/30 minutes) Basics but from wide range of subjects. Electronic Devices, Digital Design, Microprocessor and Interfacing, Microelectronics, ADVD, Analog Electronics.
- Interview: [3 rounds] 2 Technical and 1 HR.
 - Round 1: Interviewer focused on questions from basics of Digital Design, especially the synchronous sequential circuits. Static timing analysis (STA), this is very important and should be prepared well. Some questions on ADC and DAC. The interviewer also asked about the projects I mentioned in my Resume so be very thorough with your projects mentioned.
 - Round 2: Again questions were from STA and timing issues of Digital circuits (important topic!!). Questions on Verilog HDL and C programming (basics). Standard puzzles were asked. Some questions from projects on Resume.
 - 3. Round 3: This was an HR round. Tell me about yourself. Most Challenging project faced at BITS and why was it challenging and how did I overcome that challenge. Why not MS, if you have a CGPA of above 9 then prepare a good answer for this one. You should be able to convince the HR manager that in any case you will join the company and not go for MS abroad leaving the job offer. Asked about interests. At the last: Do you have any questions for me. Always ask some relevant questions from the interviewer at the end of the interview it makes a positive impact.

Sources of Preparation:

- Digital Design (very important) from Morris Mano, Verilog HDL, Basics of digital VLSI design (slides are sufficient), Computer Architecture (Recommended), Basic programming (CP course).
- Standard interview Puzzles from websites. <u>www.vlsi-expert.com</u> this website is helpful for STA concepts.

Courses and Certification:



The CDCs of EEE/EnI are sufficient. Computer Architecture (disciplinary elective) is very much recommended so make sure that you take this elective. ASIC flow is also an important concept and you can watch youtube videos for this topic.

Other Relevant Information: Just to re-emphasize: Digital Design (Sequential circuits), Verilog HDL, Static timing analysis.

Sector: IT

Name: Supriya Aggarwal (2014A7PS013P)

Company: Qualcomm

Profile: Associate Engineer

Recruitment Procedure:

- Online Test, Two technical interviews, HR
- 1. Online test had 3 sections:
 - a. General aptitude
 - b. Technical
 - c. Again technical (based on either Communications/Electronics/Computer Science)
 - d. Test was easy. However, it is important to maintain speed to finish all questions. Going back to previous questions is allowed.
- 2. Technical Interview I:
 - a. Tell me about yourself
 - b. Follow up questions from what you answer
 - c. He grilled me on my resume points: why I had taken the electives I had taken, details on every project mentioned, etc.
 - d. Difference between normal and real-time OS.
- 3. Technical Interview II:
 - He too grilled me on my resume and asked me to talk about the projects I had mentioned.
 - Sort a doubly linked list.
 - How can you find out the maximum size of the memory stack?
 - How could one implement C++ virtual functions in C?
 - What is the address of a function in a C program?
 - Who calls the main() function in C?
 - Can main() be called recursively?



- Some more questions on the basics of C.
- HR
- Why Qualcomm?
- What domain would you like to work with in Qualcomm?
- Why not higher studies?
- Why should we hire you?

Sources of Preparation

Geeksforgeeks, InterviewBit

Courses and Certification

Operating Systems, Data Structures and Algorithms, Computer Programming.

Sector: ET

Name: Kalpraj Vaidya (2016H123148P)

Company: Qualcomm

Profile: Engineer

Recruitment Procedure: Aptitude test followed by (3 interviews), tech 1&2,HR.

Sources of Preparation:

- Aptitude Test : Prepare Quant , Logical Reasoning and DI.
- **Technical 1:**static time analysis from http://www.vlsi-expert.com/2011/05/example-of-setup-and-hold-time-static.html, glitch, static dynamic hazards, clock-gating concepts, design questions like if "data is to be copied from one memory to other what components we need" (Ans:decoder, registers, program counters, instruction memory etc.)
- **Technical 2:**Verilog,cmos buffers –inverters,projects in RESUME,etc.
- Followed by HR.

Courses and Certification

No as such.



Other Relevant Information

Aptitude will play key role in getting shortlisted. Interviews were mostly on basics from digital design, STA, HDL.

Sector: ET

Name: Mayank Pandey (2014A3PS202P)

Company: Qualcomm

Profile: Software Engineer

Recruitment Procedure

First of all, an online test was conducted which comprised of three sections for the Software Engineer profile:

- 1. Aptitude and Quant (Multiple Choice questions)
- 2. Basic C coding questions (Multiple choice questions comprising of questions like predicting the output, finding out the correct implementation of a C code, etc.)
- 3. In the 3rd section, we were given a choice between Hardware, Communication and Software. As I was sitting for the software engineer profile, I selected software in this. This section comprised of a little advanced coding concepts relating to graphs, trees, etc in DSA and some OS questions as well. This, again was an MCQ portion.
- The test was easy overall, but some people found the aptitude section a bit difficult. So, I would suggest that you brush up your basic aptitude and quant skills and do so with speed, because time was the main constraint in the aptitude section. The rest of the sections had very relaxed time constraints.
- So, after the online test, around 60 people from both B. E. and M. E. were shortlisted (comprising of students from both hardware and software profile)
- After that a 3 round interview session was conducted, comprising of 2 technical rounds and 1 HR round.
- The questions asked in both the technical interviews were easy, based on basic C concepts and OS concepts. And when I say C concepts so it means that they won't let you use C++ in



answering. So make sure that you have command of basic interview C questions like questions on malloc, inline functions, macro etc.

• Finally, the HR round was pretty straight forward. He discussed with me one of my projects mentioned in the resume and asked me questions like my ambition, future goal and one tricky question regarding whether I will be giving GRE or not. So make sure that you have some basic template for these questions prepared as well. After the HR round was done, in around an hour after that I was called and they said that I have been selected for Qualcomm and in the end they shortlisted 21 candidates, 6 from B. E. and the rest from M. E.

Sector:IT/ET

Name: Mithilesh Wachasunder (2016H103076P)

Company: Qualcomm Profile: Engineer

Recruitment Procedure

- Resume Shortlisting, Aptitude test(3 sections -20 questions on general aptitude, 20 questions on technical and 20 questions on domain(Computer science / ET)). Level of aptitude is good. Practice on quants, DI is must. For technical please go through OS, architecture and Compiler Design questions from geeks for geeks. Also practice questions on pointers, arrays, storage classes, static and dynamic linking in C/C++ language
- <u>Round 1</u>: I was the first candidate for the panellist. Don't be afraid even if you are first or last. Initially he started asking some basic questions on C- function pointer, malloc, calloc etc. Then he asked about projects. I was asked that what can be the alternate approach to solve the problem(problem in my project) if I hadn't used Machine Learning. Then he came to compilers, I wrote and explained all the phases. Then he asked me to give a scenario where I would prefer compiler over interpreter and vice-versa. He then turned to OS. He asked me about the electives related to OS that I took, then asked about RTOS, Is linux kernel by default RTOS? Difference between RTOS and OS(normal). Please make sure you have good understanding of mutex, semaphore and when to prefer one over other. He told me to give the scenarios for each. In the end he asked me about the Android architecture. I answered some questions fully and for others I wasn't able to give the complete answers(like android architecture etc). This round lasted for around 1 hour. At the end of the round interviewer asked If I had any questions.
- <u>Round 2</u>: This round tested some coding skills. Irrespective of the language you code in may it be JAVA, PYTHON, RUBY or HASKELL, interviewer asked me to strictly code in C/C++.



- a. *Problem 1*: Given a linked list, each node contains some names, in lexicographical order, insert a new name in the correct position.
 - *Solution*: I told him first the naive approach and then the binary search. He asked me to code the best one.
- b. Problem 2: Finding the depth of stack(This was sort of design problem) He gave a scenario where there are memory constraints and we have to make a program that monitors the stack size used internally. It should throw warning on screen if there are nested function calls beyond certain limit.
 - Solution: I asked the interviewer a lot of questions for this problem and started coding some solution. I proposed him that we can find the size of an activation record and size of each stack frame. There was a lot of discussion on cases like how to handle the cases like recursion. I personally felt, if I would have been silent on this I would have been out at this point. But I kept on asking questions, kept on coding some small functions and also narrate the approach side by side. He then asked me about another project in my resume. This round also lasted around 1 hour. At the end of the round interviewer asked If I had any questions.
- <u>Round 3</u>: (HR this is also an elimination round)This was another stress interview. I came out after the 2nd round and was called for HR immediately after 5 minutes. He started off with simple questions to know my background. There were some typical HR questions like, Why Qualcomm? Why only you? What do you know about the role? I asked same question(like expectations from CS students 5 minutes before to my second panellist so I just quoted him). But it is advisable to know about the role and ask if you have any query in the PPT itself. Then came some tricky questions, What would your project guide complain about if I would ask him the things you could have done better? How would you improve the project if next time you are given the same project? He then held my resume in one hand looked at me and said. Your projects mostly deal with ML, Data Mining and Artificial Intelligence and our company doesn't require any of it. So convince me why I should hire you? I made up some answer that time and he was convinced.

Sources of Preparation:

- 1. Geeks for Geeks
- 2. GATE lectures on compilers by Ravindrababu
- 3. Test your C skills by Kanetkar
- 4. If you have done SES or Adv Computer architecture courses in BITS, you would have basic understanding in memory organization(Virtual Memory, paging etc)

Courses and Certification



No need

Other Relevant Information

Be honest. If you do not know some questions say you don't know. There were many of my friends who were asked questions like 3G vs 4G, CDMA vs GSM and so on. Do not take HR round lightly. People were eliminated even after HR. Bookish knowledge and small projects are on one side , all they are looking for is sincere, down to earth and smart-working candidate.

Sector: ET

Name: Abhijith Yadav Peddiboyina (2016H123139P)

Company: Qualcomm

Profile: Engineer

Recruitment Procedure

- 1. Written Test (Aptitude, C/C++ basics, Electronics 30 mins each with 20 questions)
 - a. Aptitude was tough to attempt and finish in given time. Data interpretation, profit/loss calculation, optimisation etc.
 - b. I hadn't prepared for C. But they asked questions regarding errors in the programs, output of programs (what would this program print at the end), linked lists
 - c. Core electronics was doable, but time wasn't sufficient. Profile was mostly digital, so questions were mostly from digital electronics and a few from VLSI basics
 - d. Each section ends in 30 mins and you cannot go back to previous session once you submitted. So, be careful
- 2. Interview (1 or 2, depending on your performance)
 - a. Digital electronics basics, Digital VLSI basics, Verilog programs and corresponding hardware that would be synthesized
 - b. Questions on projects and questions about any improvements to projects
 - c. Implementation of typical circuit components like tristate buffers using different logic styles
 - d. Static timing analysis
 - e. RISC processor basics

Sources of Preparation

1. Sung Mo Kang



- 2. Rabaey
- 3. VLSI Design (ME course lectures) for STA
- 4. VLSI Architecture (ME course lectures) for RISC processor

Courses and Certification

- 1. VLSI Design
- 2. VLSI Architecture
- 3. Digital Electronics

Other Relevant Information

- I found the written test tough. 73/120 out of 120 made it to the next round. While generalising the number of questions to attempt to be safe is wrong, it would be good to attempt more than half
- 2. Interviews were tricky. If you start off on a good note and show thinking skills, it would be very smooth. If you are stuck, ask for hints or think out loud so that the interviewer knows you are not sitting there blankly (this might help in getting some more info from the interviewer)
- 3. Try to be polite, but do not agree with the interviewer if you are confident. This happened to me personally, and it goes a long way in showing that you know your electronics
- 4. Don't jump to answers. Think
- 5. Don't worry if you gave the wrong answer to one of the questions. Sometimes, you are asked questions to gauge your approach than just for the answer
- 6. These guys are professional, so don't bluff or digress. You would be caught and your repo will immediately take a hit
- 7. Never say no. Try to solve the given question. If you are totally clueless, ask for help or more information
- 8. HR was mostly just discussion. But, that is not to say that you can't get eliminated there. If you make it to HR, you are almost through. But, there were 3 people who were rejected in HR from my batch. So, stay calm and be attentive. There is no way you can prepare for an HR interview. But, when asked for profile preference, DO NOT BE ADAMANT about one profile. Give them options and show that you are really passionate about one of them. DON'T BLUFF, DON'T FAKE, ALWAYS MAKE EYE CONTACT

Sector: ET

Name: Praveen Hooda(2016H140107P)

Company: QUALCOMM



Profile: ASSOCIATE ENGINEER(HARDWARE)

Recruitment Procedure:

- Online test for students having CGPA above 7
- Test had 3 sections:
 - a. Aptitude section: The DI part was tough. Questions were similar to CAT level
 - b. C programming and data structure basics(focus on pointers and functions)
 - c. Technical: Electronics, communication and computer were the options given. I had chosen electronics. The questions were easy. Mostly on digital electronics, edc ,analog and networks
- Test was easy. However, it is important to see all the questions. So, good speed is required.
- Technical Interview Questions:
 - a. Two rounds of technical interviews.
 - b. Follow up questions from what you answer
 - c. I was interviewed for hardware profile. Questions pertaining to static timing analysis, digital design and basics of VLSI design were asked.
- Verilog programming related questions were also asked. Be thorough with your projects in and out of them

Sources of Preparation

- Morris Mano book of digital design, KANG for CMOS, Rabaey for static timing analysis and logical effort.
- Geeks for Geeks for C and data structure preparation.

Courses and Certification

No subject as such.

Other Relevant Information

Be honest while replying the answers. Do not bluff. Try to take interviewer to your strong points in the resume. Try to explain the concepts thoroughly using the simple language. Know each and every part of project in detail.

Sector: ET

Name: Shivi Gandhi (2016H112155P)

Company: Qualcomm



Profile: Software Engineer

Recruitment Procedure

- 2 Rounds: Written Test and Interview
- Written test had 3 sections:
 - 1. **Aptitude** was lengthy. Wasn't able to do it completely. Out of 30 questions, attempted 24 questions. It had 1 DI, 1 LR, quant, profit-loss, etc. All common topics. Accuracy and speed mattered a lot.
 - 2. **CS Subjects**. It included basic digital electronics (gates and de morgan's law), OS, etc. Gate level.
 - 3. **C** included output questions, error questions. Required very good understanding of basic C. Bit fields in struct, associativity etc. It had tricky questions basically checked your fundamentals.

Interview: It had 3 rounds

First round was electronics interview. I didn't knew most of the answers.

- He asked me to explain one of my projects.
- He saw I had chosen cloud computing and Advanced Data Mining as my electives so he asked me how can I apply Machine Learning to the company's work.
- He picked one of my cloud computing project and I had done migration in that so he picked up his company's scenario and asked me about real time operating system and operating system. How can I apply it to the scenario he had given. How migration can be applied?
- Any questions, he asked? So I asked him how do I see myself as a software engineer in electronics company.

Second Round was pure technical on C and OS and it was good.

C:



- 1. Basic understanding of pointers was checked. Three statements were given and output of those statements was asked.
- 2. What are bit fields in structs, why do we use them, write the syntax, tell the memory allocated for the written example and the concept of memory boundary that applies in the above case.
- 3. Syntax of malloc for allocating memory to 2D array

OS:

- 1. Difference between starvation and aging
- 2. Priority Inversion and solution

Third Round was HR

- Do you know about the post you are sitting for? I said no. Then he explained me the work. To that he asked now tell me why Qualcomm?
- Why didn't you join any software giant like myntra, ola, amazon, why qualcomm?
- Take any project you did, what were the challenges you faced?
- Suppose there is a person who doesn't work in your team, how will you make him work?
- Any questions? To this, I asked him 2-3 questions based on Presentation and do I need to prepare anything if in case I get a chance to join your company

Sources of Preparation

- I prepared Coding from geeksforgeeks. Don't jump to too many sources, stick to one but do it in its entirety.
- C was prepared entirely from geeks and it helped me a lot understanding basic concepts.
- Subjects can be handled with GATE knowledge.
- I didn't prepared for aptitude at all. There was a session organised by PU for aptitude. I attended that session and that helped me a lot brushing up my basics.

Other Relevant Information

Your time for preparation is only limited to 2 months summer break. Once companies start visiting the campus, you won't find time to study at all. At 12:30 am you will be informed

that you interview tomorrow at 8am. If you think you will prepare for interview in the last minute that's not going to help.

Sector: ET

Name: Sahil Chandna (2016H140101P)

Company: QUALCOMM

Profile: Associate Engineer

Recruitment Procedure :

- Written Exam
- Technical Interview 1
- Technical Interview 2
- HR

Written Test had three Sections Aptitude, C Basics and Technical (you will have option to select Electronics, Communication and Software in technical Part)

- I opted for Electronics and Questions were mainly on Digital Electronics, few questions on Analog Electronics, in all 20 questions to be done in 30 minutes. Level –Easy to Crack with preparation.
- Aptitude- Don't neglect this part of the preparation, Aptitude was a little on tough side, do prepare well for it and Accuracy is the key to crack.

Technical Interview 1 – I clearly stated my area of interest in first few seconds of the interview and what followed was questions on Operating system, few questions on Projects, A programming problem to Solve, General Questions about Courses in this semester

Technical Interview 2 – Questions on Area of interest, Projects completed, Challenges faced while working on project, Real time Operating System , C basics, Bit manipulation, Synchronization techniques in Linux .



HR- The HR was friendly, mostly questions on previous work experience and why Qualcomm. B.E students may have hard time convincing why Qualcomm and not M.S, do prepare for this.

Sources of Preparation

- Course subjects
- For C geeks for geeks is enough

Other Relevant Information

Be clear with the profile you want and make this clear on resume too by highlighting the projects, they are not interested if you have done 20 projects or 5, your work should align with their job description and do get information about the job roles and the company in general from Seniors it helps a lot in the interview.

Sector: ET

Name: Dilna P. (2016H103083P)

Company: Qualcomm

Profile: Software Engineer

Recruitment Procedure

Online Test:

- 1. Aptitude and Technical Aptitude. Mainly 3 sections. 1st section had general aptitude with time/distance, data interpretation, ratio-proportion, percentage etc.
- 2. Second section had C and Data structure questions Intermediate level. C questions had bit manipulation/ output questions.
- 3. Third section for Software had OS , C , Data structure questions. OS had questions equally from mutex/semaphore, Disk scheduling, Paging/segmentation.

Interview Procedure:

First Round: Questions on C: Dynamic allocation of 2D arrays. Proper syntax required. Operating System concepts: Starvation, Ageing, Priority inversion, Critical Section. Explain with the scenario example. C memory management concepts.IPC-Different types. How shared memory is implemented. How memory is allocated for arrays and array of pointers.



Infix, Postfix, Prefix of Binary tree, Reverse polish notation. Binary search Implementation. Bit manipulation question to write code to set a particular bit number to 1. C output questions. Asked to explain one project from the resume.

Second Round: Asked to explain any 2 projects.

- Design question Design a system for communication of two process in a single system from scratch.
- Design a system to implement the finite state machine having multiple states and events. He asked to write an optimized code for the same.
- HR questions like Why Qualcomm?

Third Round(HR):

- Went through my resume line by line. Asked about the schooling, college, job experience.
- Why BITS? Why Qualcomm? What was the biggest challenge you faced in BITS, personally and technically. Asked which area would I like to work in and would I be okay if I will not be given project of my interest.
- HR round is all about how confident you say the answers. I was prepared for most of the questions asked in HR and had an idea what to answer.

Sources of Preparation

- GeeksforGeeks/Interviewbit
- OS/Networking Ravindrababu Ravula videos and geeksforgeeks.

Sector: ET

Name: Piyush Raghav (2016H1030078P) Company: Qualcomm

Profile: Assistant Engineer

Recruitment Procedure: 1 Online Test, 2 Rounds of Tech Interview, 1 HR interview.

Online Test: Test was conducted on hirepro platform, it had 40 questions, 20 from quant verbal and reasoning and rest 20 is technical which involves C I/O question, data structure, OS concepts. Each question has +1 for correct and -0.25 for negative.



Tech Round 1 (60 mnts): Well it was a surprise for me, as I am from CSE background but they expected people with electronics background, however my interviewer was very happy after seeing my resume. He started with,

- We are expecting people with communication background but it seems you are from CS, as you already know the job description, is this profile makes you excited?
 - Ans: I answer affirmatively, and then I used few terms like 1g, 2g, 3g, 4g, base station, modulation demodulation QPSK, PSK whatever came in my mind that time I just spoke, then he started asking about all these above terms, how they are implemented etc. I explained few of them in details (some of my communication friends helped me in preparing those answers just outside of PU).
 - I was very honest with him, I told him that I know all these things but not in details as I had done few of communication subjects in my BE, which was in 2013-14 after that I worked for 2 years in company.
- He then asked me about my corporate project, which I explain him in detail.
 - Note: He doesn't seem interested in my project, and this boost up my confidence (don't know why) then I used few fancy terms that my team used to say like RMS, FMS, TMS, OMS, WMS. I gave him real world example of the application on which I had worked.
- He then told me, we are not doing this stuff, still you wanted to join.
 - **Ans**: I explain him my previous subjects which is networks, cloud computing, Advance data mining, then I told him that I am going to take Pervasive computing and Real-time system in this semester. So, the combination of these subjects makes me a suitable candidate for this position.
- Then he asked me about my research paper(Networks) that was there in my resume
 - I explained the paper in details to him and then he moved to my academic projects which is again in networks. I told him the approach, flow diagram of algorithm. He seems very happy with the project and he understood it very well. He cross questioned on my projects which I was able to defend successfully.
- He asked me any question, I asked him few questions and that's all.

TechRound2(30mnts):This interviewer is different from others, he didn't have any expression on his face. He started with:

- Do you want to ask any question (which is generally a last question that interviewer asked, but he asked it as first question)? I asked him few question about company policies and all.
- Then he gave me situation, suppose you have 2 processes let say A and B, A is generating data which B wants. Now make a technique by which they can do this.?All though I know that, he asked the same question to other people also so I had to do it differently.



- I started with question, whether theses process is on same machine or on different? he said let's make it easy and consider that they are on same machine. I suggest to use shared memory then he asked me who owns this memory I said OS. I gave him semaphore approach for blocking reader writer process using structure and queue after that I gave him Pipe approach then he said what if they have different speed, I suggest use pipe + buffer, then he said it will become complicated, then I suggest leaky bucket approach. At last he said let's change the question.
- Given three events and three actions, how the Finite state machine looks?
- This is again the repeated question that he asked to earlier candidates, I know what approach they have suggested and what drawbacks they have. So, I started with same approach which is nested if condition, then I slightly modified it to switch case + if conditions, then he told me it will work, then I said that it is not scalable, on which he agrees. Then I gave him scalable approach using matrix, and then I told him that space complexity will be very high for this, then I gave him list approach and then finally using graph. He seems satisfied with these various number of approach.
- All the time he was typing on his laptop, and some time looking over on my sheet. Then finally he said any questions, again I asked him few. He was very calm and told me that he was also from CS background and doing this work from last 12 years, also he was the presenter in pre-placement talk. In this round, he was not expecting for correct solution as these are open questions without any unique solution but on how fast you take decision if some changes made in question and how logically you can think about it in right direction.

HRRound1(20minutes):Finally, it's time for HR, he makes me comfortable and offer me snacks which I took without any
hesitation as I was very hungry. He then asked my resume and enquired about my home city.

He then moves to question answer session.

- 1. Why QUALCOMM, why not just other software company as you are from CS background?
 - a. Since I know how to deal with HR's from my past experiences, I handle it very swiftly. I involved my past experiences and my academic experiences in answer. He seems ok with it.
- 2. Why ME after job?
- 3. What makes you different from other people sitting in waiting area.
- 4. Again, I involved my experience, research and academic details in it.
- 5. Finally, he asked me, any questions? I asked him two questions.

Then he said nice to meet you, you can go now, I took the biscuit from his plate and left the room.



Again, he didn't have any expression of positivity neither of negativity.

Early morning at 2:00 am, they disclosed the result and called the selected candidate to PU office, where the QUALCOMM team was already presented. They took the team photos and congratulated everyone for making into QUALCOMM.

Note: All though they didn't ask any C question or coding related stuff, to me but I was prepared for them also. However, they asked good questions on coding to other candidates.

Sources of Preparation

- 1. Quantitative analysis, reasoning and verbal: RS Agarwal
- 2. C, C++: geeksforgeeks (Qualcomm interview experiences)
- 3. Coding: Geeksforgeeks and Elements of Programming Interview
- 4. **Operating System:** Galvin
- 5. Computer Networks: Data communication (5th edition) by Forouzan
- 6. **DBMS:** YouTube channel named: TechTud.

Courses and Certification

Advance Computer Networks, Advance Operating System, Advance Data mining, Cloud Computing.

Other Relevant Information

For QUALCOMM normal C and C++ knowledge is not enough, candidate must now how the code impacts memory and hardware, since you are going to build a software that will deploy on limited memory chip. So, all the bits operation, fast arithmetic operation and memory mapping techniques is essential for interview.

Don't put anything on resume, skills in which you are confident only mention them (I removed java, as I am more comfortable with C and C++ and they prefer C people above Java), put only relevant projects which aligns with company requirement.

Be confident and have a smile on your face. The process is very lengthy for you and your interviewer, even your interviewer will be tired but a smile on your face will give him some energy.



Sector: IT/ET

Name: Manpreet Singh Gulati(2016H112158P)

Company: Qualcomm

Profile: Associate Engineer

Recruitment Procedure

There was a written test consisting of 3 sections- aptitude questions; C,C++ output questions;Computer science theory related questions.20 questions in each section to be solved in 30 minutes. Aptitude was time consuming and bit tough.

There were two technical and one HR round that followed the written test for this profile.

- 1. **Technical round one** This round lasted for around half an hour.Questions that were asked ranged from a variety of subjects- OS, Data Structures, Electronics and communication,Algorithms:
 - a. Purpose of OS.Explain with example.
 - b. Recursive approach pros and cons.Simple program on recursion.
 - c. Meaning and equation for frequency modulation.
 - d. A question on locality of reference in C.
 - e. Difference between malloc and calloc.
 - f. How memory is allocated to a two dimensional array dynamically code in both C and C++.
 - g. How to allocate additional memory after allocating an initial memory to an array.(Hint: Resize in C++ and realloc in C)
 - h. Paging and virtual memory concepts.
 - i. What are your interest areas and subjects you have studied in masters? This round ended with a firm handshake and a bright smile.
- 2. **Technical Round Two** This round focused on the design questions and revolved around my approach towards the given problem so that the solution was best fit in an embedded system-optimised in both space and time. This round lasted for around one hour.
 - a. Design a system consisting of two modules- a producer of data and a consumer. Once the producer passes the data to the consumer, the entire ownership of the data is held by the consumer- it can either store it or forward it. A lot of constraints were added based on my questions and approach provided. I gave him many solutions starting from use of shared memory to memory locks to marshalling of data. The interviewer looked happy with my solutions but still wanted more optimisations. I kept



improving the block diagram of my solution approach based on the feedback received from the interviewer and the constraints that were added.

- b. Design a finite state machine having three states and three events. A lot of information was left open for interpretation. I clarified a lot of points before starting my solution approach. I came up with a simple if -else approach in a do-while loop consisting of a event-listener.I wrote the code in C++ and explained the entire flow to the interviewer. He looked impressed but wanted an alternate approach. I discussed the possibility of an increase in state or an increase in events for our system and came up with a parameterised approach for the events and states. I also discussed the possibility of storing the state-event pair in an adjacency list kind of data structure.
- c. Discussion on my resume and one project.
- d. What was the most difficult technical issue that you faced during any of your projects?
 - I discussed my cloud computing project and mentioned the difficulties in terms of working on a entirely new platform and issues related scalability of our solution.
- e. What was the most difficult non-technical issue you have faced so far?
 - Here my work experience helped me out and I shared an instance of people management and ego-handling which I faced during my training at my previous employer.
- f. Why Qualcomm?
 - I clearly mentioned my interest areas and alignment of company vision with my own to be at the heart of this decision to be a part of Qualcomm.
- g. Any questions for me?
- h. I asked him about how could I be an impact maker in my allocated team. How has his journey been so far in Qualcomm and what exactly will be my roles and responsibilities once I join?
 - Never waste this question. Its your golden ticket to involve the interviewer and get a feel of the work culture and team dynamics of the organisation.

3. HR round

This round lasted for around 45 minutes. I was asked the following questions

- a. Why do you want to join Qualcomm?
- Discussion on one of my project. It was an android application. Architecture of the project, team dynamics, my role and responsibilities? What were the challenges faced and how I overcame them? What would I do differently if given a chance to create the same

project again with same resources and same team? What would be my team members feedback if they were asked about my performance? What I would think about that feedback? Do I have the android application installed in my phone? How many active users? Scope?

- c. Why did I leave my previous employer and pursue masters?
- d. Any questions for me?

The interviewer was very experienced and very helpful. All my answers were being noted and feedback was updated from one round to another.

Sources of Preparation

- Interviewbit
- Geeksforgeeks
- Pointers in C by Yashwant Kanetkar
- Data Structures and algorithms made easy by Narsimha Karumanchi

Courses and Certification

None

Other Relevant Information

The interviewers were really helpful and had a pleasant personality. The main crux of cracking the interviews, apart from technical knowledge is confidence and self awareness. Do prepare well for both technical and HR rounds.Never give up on any question even if you are not able to come with the most optimal solution, just keep discussing the possibilities with the interviewer. And remember-

"If its your day, its your day. Keep your spirits high and hard work going. Success is bound to come to footsteps of those who never quit"

Sector: ET

Name: Ayushi Jain (ME communication)

Company: Qualcomm

Profile: software/hardware Associate Engineer

Recruitment Procedure



• 4 Rounds : 1. Online test 2.Technical interview 1 3.Technical interview 2 4.HR

Online Test had 3 section

Aptitude : quant ,DI and Logical reasoning (level much above than gate) . try to maintain the speed.

Programming section: contains question related to C/Data Structure/CS. (refer sites like indiabix and geek for geeks)

Core (electronics/communication/computers): I chose communication (easy) and topics included were Gaussian random variables and process , information coding(entropy calculation) , filters

- Round 2 Technical:
 - a. Explain two of the project
 - b. Question related to fading
 - c. Question related to work experience
 - d. Why qualcomm
 - e. What troubles u faced during projects
 - f. LTE core network
 - g. If millions of number of integers are being received ,how will u store them (if u know the range)(BST or Linked list)
 - h. Asked me if I had any queries(asked him about the work they do in 5G and IOT)
- Round 3 Technical:
 - a) question related to my work experience .(about my work,project,being a star performer why i left the company)
 - b) what is modulation.need for it.types of modulation.
 - c) Techniques used in 2g/3G/4G (2g :TDMA and FDMA ,3G: WCDMA ,4G :OFDM).distinguish between them.
 - d) Reverse the link list
 - e) Why qualcomm
 - f) Asked me if i had any queries (I asked him about his experience at qualcomm)

HR Round:

- a) Introduce Urself
- b) Why I left previous company
- c) Why dint I join qualcomm directly.why I chose ME
- d) What is difference between 1G /2G/3G
- e) Why qualcomm



Sources of Preparation

Indiabix and geeks4geeks : C/DS

Communication : ADC subject books

Wireless : rappaport

Other Relevant Information

Thorough knowledge of projects, wireless and should know basic algorithms in data structures.

You need to be able to convince the recruiter why you wish to join that particular organization.

Sector: ET.

Name: Fiza Tariq (2016H140104P)

Company: Qualcomm

Profile: Multimedia Hardware

Recruitment Procedure :

The procedure consisted of four stages starting with a written examination. One had to clear a stage to go to next one.Written constituted of aptitude section. Prepare well for aptitude. Do not take it lightly. The technical section of written had questions from digital electronics, analog electronics, Microprocessor, C language and Data Structures.The written required good speed and accuracy.Once again, please do not take written exam lightly. Prepare well. Though questions were easy but u need to be confident to be able to crack it so do prepare to gain confidence. The written is followed by three interview rounds of which two are technical rounds and one is HR round. My interview was completely based on my resume and one of my projects. If you are from embedded systems then prepare your resume according to the profile you want to apply for. If you are interested in Hardware then also I would suggest to not completely ignore the software section which includes C and DSA. I was interested in Hardware profile still I was asked basic software questions. I believe they were to check my confidence and attitude towards something that I was not expecting. I was asked about recursion in C. Your attitude and confidence plays a key role in your



selection. You are not expected to know all the answers but you should be able to approach a new problem. It is appreciated. Choose your projects very wisely. I believe I got selected due to one of my projects. Prepare your resume well. **YOUR RESUME IS A SYLLABUS YOU ARE GIVING TO YOUR INTERVIEWER**. Also, do prepare for HR. **ALSO DO NOT GO FOR BIG THINGS WHILE IGNORING YOUR BASICS.** You will be interviewed on your basic concepts.

Sources of Preparation

GeeksforGeeks for C and DSA. For technical I practiced previous year gate questions of analog and digital electronics.

Courses and Certification

For Hardware, VLSI Design and Verilog and Digital Electronics.

For Software, C and DSA.

Other Relevant Information

Practice before your interview on how you will explain your projects to the interviewer. One of my friends was asked to explain his project in two minutes.

Always start with stating the objective of the project very clearly.

Try to explain the project in simple terms so that the interviewer do not lose interest.

Also do not write anything on the resume of which you are not sure of.

Sector: ET

Name: AVINASH KUMAR (2016H123143P)

Company: INTEL

Profile: Component Design Engineer

Recruitment Procedure

- Resume Shortlisting based on minimum 8 CGPA .
- Technical interview Questions:
 - a. Tell us about your projects on digital.
 - b. Follow up questions from what you answer related to projects only.



- c. Digital section they asked about setup time , hold time , latches , flip-flop and basic digital question about skew and jitter . They care more about the thought process and logic rather than the answer. Have a structured approach to solve the problem and don't guess or make assumptions. Ask for clarifying information if necessary.
- d. Some other concepts related to power dissipation, types of power, switching power

Sources of Preparation

CMOS Digital integrated circuits : Sung Mo kang , Yusuf Leblebici, Chulwoo Kim.

STA from <u>http://www.vlsi-expert.com/</u> go through all concepts related to setup time , hold time, skew,jitter.

For aptitude and C <u>https://www.indiabix.com/</u>

Other Relevant Information

Go through all the concepts related to VLSI Design and some concepts from CAD for IC Design. Projects should be prepared well. 80% of the interview was on projects only and 20% some Basic digital concepts from LATCHES and Flip- flops . Prepared well and you will crack the interview.

Sector: VLSI

Name: Arpit Singh (2016H123135P)

Company: Intel

Profile: Component Design Engineer

Recruitment Procedure:

Intel shortlisted students on their resume and the cutoff gpa was I guess 8.00(not sure) there was no written test. They had three panel of interviewers from different groups students were interviewed in 1,2 or all 3 panels which was pre decided. I was interviewed in 2 panels the 3 rd panel was for software people. My first panel interview was okay he asked me only about my projects and what I did in those, which project I liked the most, which one was the most difficult one. Make sure that you highlight your digital projects for intel as they don't recruit for analog. In the second panel he asked me about my projects and gave me 3



digital questions to solve. First one was a pulse stretcher circuit, the question was twisted but it was simple, the second question was level to pulse converter using only one flip flop and the last one was like this "there are 31 bits all are 1 if you want to have parity which parity would you prefer and why?" this question I had no clue but still I tried, he just saw my approach and my confidence. That was it I wasn't interviewed for the last panel and was shortlisted.

Points to remember:

Be confident with your answer and try to show the interviewer that you are thinking about the question and really want to solve it... even if you don't give the correct answer give roundabout answers, the interviewer will guide you through. And at last be very particular with your resume because they read it very carefully.

Sources of Preparation:

VLSI Design (Kang), CAD for IC Design (Asati sir slides), digital electronics (gate notes) and one very important pdf I have attached in the mail...all questions from every interview were from this pdf ..DO SOLVE THIS COMPLETELY.

Courses and Certification:

No courses and internships just placement preparation.

Other Relevant Information:

JUST BE CONFIDENT AND SHOW YOUR APPROACH.

Sector: ET

Name: Harjap Singh Saini (2016H123137P)

Company: Intel Technologies Pvt. Ltd (PG)

Profile: Component Design Engineer

Recruitment Procedure

First of all, resume short-listing was there. According to skills and projects done, we were shortlisted for 3 different groups i.e. SDG (Server Development Group), HVG (High Velocity Group) and DCG (Data Center Group). The team managers of all these 3 teams were there to



recruit. HR round was done for few of the students but it hardly mattered as the final decision was of team managers only.

I was shortlisted for SDG and DCG. In SDG, I was asked the following questions:

- Moore state machine and its Verilog code
- Pulse Detector Circuit
- 2 different clock domain synchronization
- PMOS device working
- Decision of odd or even Parity bit for 32 bit bus
- Hazards in pipeline architecture

In DCG, I was asked only about my project I had done in Research Practice. This profile was more oriented towards software, so I gave my preference for SDG only.

Sources of Preparation

Digital Design by Morris Mano, VLSI Architecture by Nick Tredenick, Digital VLSI Design by Raebey, sources provided by seniors are very important.

Courses and Certification

ADVD, VLSI Design, VLSI Architecture

Other Relevant Information



Stay cool during interview. Even if you are stuck at some point, ask clues from interviewer.

Sector: ET

Name: Nishant Khosla (2014A8PS356P)

Company: Intel

Profile: Component Design Engineer

Recruitment Procedure

• Resume Shortlisting :

Based on our resume they shortlist us for either of the following groups :

- a. High Velocity Product group
- b. Server Development group
- c. Data Centre group
- Technical Interview :
 - a. There was a separate panel and only one technical round for each group.
 - b. Those who were shortlisted for multiple groups had separate interviews for each group.
 - c. The interview was easy. They asked basic questions from almost every topic. The interview was of around 20-30 mins.
 - d. They also grilled us on our project.
 - e. Some basic HR questions were also included in the same interview.

Sources of Preparation

- Class notes and text books of all basic courses like : Electronic Devices, Digital Design , Electrical Sciences , microelectronic circuits , ADVD .
- Gate Study material available online (**RECOMMENDED**).
- Reports of all the projects that we did.



Courses and Certification

- Some basic understanding of Computer Architecture and Operating system helps.
- Focus on interview question on Digital Design and Digital VLSI.

Sector: ET

Name: Rahul Shrotey (2016H124060P)

Company: Intel

Profile: Software profile (Data Center Group)

Recruitment Procedure

- 1) Resume shortlisting Criteria CGPA>8
- 2) There were three teams from the company (DCG, HVG, SCG), depending upon their requirements the teams shortlist resume.
- 3) You can get shortlisted for more than one group. Each group has its own interview.
- 4) I was interviewed only for the DCG group.
- 5) My interview was mainly based on resume and projects.
- 6) Basic questions on C coding were asked
 - a. What is static variable?



- b. Given a variable in function how would you modify it from another function?
- c. What is volatile variable?
- d. What is multi threading?
- e. Write pseudo code to print the given * patterns.
- f. What are various features of C?
- 7) NO HR round for some people.

Sources of Preparation -

For C coding geeks for geeks website and Let us C, digital circuits BE and made easy notes, VLSI design- Lecture slides and Kang, do your projects thoroughly and know everything you write in your resume.

Courses and Certification-

For C coding I have certification from KICIT, If you want to cement your chances in hardware profile taking up VLSI design is must.

Other Relevant Information-

Panel is helpful and they try to keep interview as light as possible. Prepare digital circuits and VLSI nicely for hardware profile also if you have done relevant projects in BE do mention them. For software profile C is must.

Sector: ET

Name: Mandeep (2014A3PS014P)



Company: Intel

Profile: Component Design Engineer

Recruitment Procedure

- 1. Resume Short listing
- 2. Technical and HR Interview

Technical and HR Interview :

Technical Interview was very easy for undergraduate students. Questions were based on the projects mentioned in the resume. You must know each and every detail of your projects. If you don't feel confident about any project, it's better not to mention that in your resume. Apart from that, all other questions were very basic like

- What is FSM ? What are its types and difference between them?
- What are different types of power dissipations in VLSI digital circuits?
- Inverter transfer characteristics and relation between temperature and threshold voltage.
- How to make a D flip-flop from T flip-flop and vice-versa.
- Some basic Op-amp related problems.

There was not a separate HR Interview. After asking technical questions he just asked "Why not MS ?". Be prepared with all the common HR questions like Why Intel?, What role did you play in your project ? etc.

Sources of Preparation



Digital Design by M. Morris Mano, Rabaey(ADVD digital part), Computer Organization and design(Third Edition) by Patterson Hennessy.

http://www.vlsi-expert.com/p/static-timing-analysis.html

Courses and Certification

Digital Design(Very Very Important), ADVD, Computer Architecture, Mup

Other Relevant Information

If you want to crack any test or any technical interview for Digital Profile then you must do the followings :

- 1. Practice Digital Design questions. Speed does matter a lot.
- 2. Do your Comp Arch project seriously. You must have a good knowledge of Verilog HDL.
- 3. Static Timings Analysis. This seems to be a very easy topic, but it's very important, especially for Qualcomm.
- 4. Aptitude. Don't be over confident. Qualcomm aptitude test's level was moderate to difficult. Practice Data Interpretation, Logical Reasoning problems and you'll be good to go. You can also refer to CAT notes of your friends.

I passed all the technical (Digital) rounds by doing the above four things. For your information, my HR interview for Qualcomm didn't go well.

Sector: ET

Name: Shivi Mishra (2016H1400100P)

Company: Intel

Profile: Component Design Engineer (Server Development Group)

Recruitment Procedure

- Resume shortlisting.



- According to your resume you will be assigned your business group to be interviewed for.
- This year Intel had come with 3 business groups and I was shortlisted for 2. Each interview was independent of each other
- No HR round
- 1 technical in SDG based mostly on clock synchronization
- I was selected in SDG hence was not interviewed for the second business group

Sources of Preparation

- vlsi-expert.com/2011/04/static-timing-analysis-sta-basic-part3a.html for setup and hold time
- Kang for VLSI design
- Digital design
- Patterson for VLSI architecture

Courses and Certification

- VLSI Design

Other Relevant Information

- Managing cool during interviews is extremely important
- Giving up or straightaway saying that you not know the answer will get you rejected VLSI architecture
- Digital design
- Verilog
- . Atleast try thinking and show it to them. Thinking aloud works.
- Even if you are unable to answer a question, do no fret. Think logically towards its approach. Interviewers keep guiding you. Even if you do not arrive at the correct solution, your approach is shown.
- Positive attitude and never give up attitude is important



Sector: ET

Name: Vebhav (2016H123147P)

Company: INTEL

Profile: Component Design Engineer(hardware profile)

Recruitment Procedure

No written test, they shortlist us may be on the basis CGPA.

This time INTEL came for three profile and they shortlist different students for different profile based on their resume and projects taken.

Some students interviewed for more than one profile some for only one profile. And all interviews are independent to each other.

HR round is optional or say HR round is not an compulsory round some of us were called for HR and some of us not.

QUESTION:

In the technical round they ask question on CMOS digital design and they also ask questions on your projects, setup and hold time, static timing analysis, FSM, frontend and backend design flow, and some question on design e.g. design a circuit using one D-ff and combinational circuit which gives output one for detecting five pulses at input.

Sources of Preparation

For CMOS digital design read Kang and rabey.

http://www.vlsi-expert.com (read the blog for static timing analysis)



digital electronic Morris mano

study your projects thoroughly before going for the interview and practice some FSM design question.

Courses and Certification

CAD for IC design because in this subject you will get some glimpse of backend design, so useful for the interview.

Sector: ET

Name: Shivam Goel (2016H124062P)

Company: Intel

Profile: Component Design Engineer/ Software Engineer

Recruitment Procedure:

- No written test
- Resume shortlisting (CGPA>8.0) 75 students applied out of which 26 shortlisted for interview
- There were three technical people from three different departments DCG, HVG & SCG . On the basis of resume, you can have one, two or three interviews. All interviews are independent of each other. There is no relation between different interviews.
- I was shortlisted for DCG group. The interviewer was very supportive. He first asked about where my school is, where do I live etc. He then told me stay calm and don't worry even if I don't get the answer. He asked which all subjects you are comfortable in.



- I was asked to write a C program to print a * pattern (kite). Write the program in simplest possible way and then explain the flow of program.
- I was asked whether I'm comfortable in MATLAB and what I did in MATLAB. I explained my research project. I explained my project for 20 minutes in layman terms relating it to day-to-day things and applications.
- There was no HR round.

Sources of Preparation:

- You should be good in subjects you know.
- No extra preparation required as you will be asked what you are comfortable in.

Other Relevant Information:

• You should be very good in your projects.

Either C or Verilog is must.

Sector: ET

Name: Aayush Gupta (2014A8PS443P)

Company: Intel Technologies Pvt. Ltd

Profile: Component Design Engineer

Recruitment Procedure:

- The process consisted of three rounds: Resume Short listing, Technical Interview, and a brief interaction with the HR.
- The Resume Short listing was done on the basis of the projects and courses on the resume.



- The Technical Interview consisted of questions on varied topics such as:
 - 1.) Single Cycle and Pipelined MIPS Microprocessor from Computer Architecture.
 - 2.) Hazards and ways to avoid them, again from Computer Architecture.
 - 3.) Data Flow and Behavioral Modeling, coding in Verilog.
 - 4.) Basics of Digital VLSI Design, explaining the functioning of a PMOS, a CMOS Inverter, Leakage Current in Inverters etc.
 - 5.) Designing various circuits using given no. of D Flip Flops and Logic Gates, on the basis of basic concepts of Digital Design.
- The interaction with HR was informal, a mere formality.

Sources of Preparation:

- Digital Design, from Morris Mano Textbook.
- Digital part of ADVD, from notes and Kang/Rabey as reference.
- Verilog Coding from sections given at the end of chapters in Morris Mano Textbook.
- Computer Architecture from class notes and slides, just the basics are sufficient.
- Apart from this, having a basic knowledge of Analog Electronics and Microelectronics is a plus.

Courses and Certification:



Computer Architecture, Analog & Digital VLSI Design, Digital Design, Analog Electronics, Microelectronic Circuits, Operating Systems

Sector: ET

Name: MEGHA DIXIT (2016H124059P)

Company: INTEL

Profile: SOFTWARE ENGINEER/ DATA CENTRE

Recruitment Procedure:

ROUND 1:

RESUME SHORTLISTING/TECHNICAL/HR

The first round was a resume shortlisting round. Post this, after the company PPT it was mentioned that there were three different profiles for which the company has visited the campus, and each shortlisted candidate might be interviewed for more than one team, depending on his/her resume. I was interviewed for DCG team. The whole communication batch was interviewed for the same (if you have a good hardware based resume and good projects which will reflect the same, you might be interviewed for more than 1). So I would say that in this round, your projects and resume will matter the MOST.

The interview was 40-45 minutes long interview which started off with discussion at length of my resume. I was asked to explain the projects that the interviewer pointed to. Questions about what did you learn, problems faced etc will be very common when the projects will be discussed. Try to explain everything in very very simple language and not complicate the answers. This was followed by a thorough scan of my resume and shrt questions or at length discussion about every word. Even the technical proficiency was tested and discussed. I was asked to rate myself on my skills in C, although he mentioned that I do not expect too good of a proficiency as you have worked on many different types of projects in the past year. Be honest and do not rate yourself above what you should not. Because the next question was (and ALWAYS will be) a small discussion about things like time complexity etc. so be confident and very very calm when you answer. Some questions about the network layer and routers were also included.

Another point being, be very attentive and thorough with whatever technologies and points discussed in the PPTs.



The HR round was the usual 'if not intel then what', 'how do you find bangaore', 'how do you find intel in terms of products'. Be very confident when you answer.

All the best.

Sector: ET

Name: Mayur Mahajan (2014A8PS412P)

Company: Intel Technologies

Profile: Software Engineer

Recruitment Procedure

- Resume Shortlisting, Technical Interview , HR
- Different interviews for different profiles. I chose software Engineer.
- Questions :
 - a. C Programming questions memory leak, macros, inline, struct padding
 - b. Basic Data structure, searching and sorting questions Tree, Heap, Map
 - c. Fibonacci number, array consist of duplicates except one-find that number. Expected different approaches.
 - d. Bubble sort, merge sort, quick sort.
 - e. OS and OOP questions
 - f. Asked about projects from the resume.
- Interview was easy. If you are preparing for IT jobs, then it's a cakewalk.

Sources of Preparation

GeeksforGeeks, TutorialsPoint, Articles and interview experiences from these websites.

Courses and Certification

Nothing specific.

Other Relevant Information



Show your eagerness to join the company. Be honest, if you do not know something or you haven't done that particular course, do not beat around the bush and politely ask say that you are not comfortable in that course. Keep a smile throughout the interview ③All the best.

Sector: ET

Name: ASHUTOSH KUMAR SINGH (2016H123140P)

Company: INTEL

Profile: COMPONENT DESIGN ENGINEER

Recruitment Procedure:

- 1. Resume shortlisting (Cgpa 8 & above)
- 2. technical interviews

Total 3 panels (1 interviewer in each)-2 for hardware profile , 1 for software

Mine has 2 interviews

Experience 1st interview

Project based (mine was RISC Pipeline and CISC Processor based –want to see confidence in explaining the project and some good ques. Related to it (Try to focus on imp. Issues in your project, its relevance, some special designing u have done)

Parity generator



Which is better to use- even or odd parity? Ans- odd parity because normally during off state ,output of ckt is zero and using odd parity gives the parity bit as 1 which means ckt is in off state but he also told that this is a likely ans not the only.

Definition of setup time hold time

Fsm related question- 2 flops one with 1ghz ,other with 500 mhz clock

Now the first flop is having a pulse of 1 cycle duration -how to detect it in 500 mhz system? Ans - basically convert pulse of duration 1 ns into a pulse of duration 2ns so a not so good ans is f/2 counter based ckt (toggle mode circuit)

Good ans- shift the first pulse by 1 clock period and do the orring with the unshifted version of pulse .

Q . a signal which is 1 for 5 clock duration is to be detected by generating another pulse which is 1 for 1 clk duration.

Q. Risc and cisc processor difference and why pipelining is not supported in cisc?

REVIEW BY INTERVIEWER

Since u r applying for digital design engineer post , be very well in fsm ,mealy moore designing and static timing analysis.

IMP. TRY TO BE VERY CONFIDENT IN EVERY ANSWER.

APPROACH TO A QUES IS MUCH MORE IMP THAN FINAL ANSWER

Experience 2nd interview



He is more interested in the projects

(15-20 mins)

Again asked about risc cisc processor project but with much details-each control signals , how the data is read and written , how addressing is done, memory map and its access.

About the hazards involved in pipelining-WAR, RAW, WAW

STALL and DATA FORWARDING

Asked to draw entire 5 stage pipeline with pipelined regs. And its sizes

(15-20 mins)

Then starting from very basic ques in static timing analysis he went on to ask some very detailed conceptual question about maximum frequency, setup hold violation .

(15 mins)

Then again about my RP project- FINFET based SRAM design

Since intel is only company company which is involved in successful development of finfet devices so he asked ques . about its principal, advantages over mosfets , low power based ques , Short channel effects , why finfet ?

Ask to properly explain about sram arch. Proposed by me .

10-15 mins



About ic fabrication steps like photolithography, etching ,the entire fabrication flow given in kang chap-2 ,also about photoresist- +ve,-ve.

Ques from digital electronis –flip flop conversions, difference b/w latches and flops what is slack borrowing.

Sources of Preparation

Verilog- samir palnitkar upto ch -8, vlsi academy website ques .

Digital - kang complete even upto 14 chapter although not in syllabus

Rabaey imp chapters only

Gurunarayan sir slides (present in me bits folder)

Gate material is again very imp and made easy book on digital elec.

Very-2 imp VIsi expert blog on STATIC TIMING ANALYSIS deep study

Synchronisers

Basics of CAD- asati sir slides

Other Relevant Information

Really focus on choice of projects in mtech especially –keep informed about what ur dream company is doing and in what field

Please prepare very well fr ur placements

Don't take it lightly.

Sector: ET

Name: Abhinav Garg (2016H140103P)

Company: Cypress Semiconductors

Profile: Applications Engineer

Recruitment Procedure:



Three telephonic interviews. Two technical and one HR. For technical interviews prepare basics of MOSFET and projects related to Internet of Things.

Sources of Preparation:

Kang for basics of MOSFET and search internet for common interview questions.

Other Relevant Information:

Prepare your projects well especially if you have a project related to Internet of Things

Sector: ET

Name: Syed Irfan (2016H140099P) Company: Cypress Semiconductors

Profile: Product Development

Recruitment Procedure : Total 4 rounds

- Round 1 (It was for about 1 hour Skype interview)
 - First they told me about the profile they are interviewing for and asked me whether i am interested or not.
 - Then the interview started with basic rc low pass circuit and asked me to draw the voltage current waveforms and their equations.
 - Then they asked about CMOS inverter characteristics and their regions of operations, short circuit current, and power dissipation.
 - Then they asked me any two ways to create an infinite loop (while and for) while programming any micro controller.
 - Then the questions were about communication protocols (i2c, spi, uart advantages and disadvantages), what will be their waveforms when the transmission is taking place.
 - Then they asked me about my ESD project in which i have used ADC module, they asked me is there any other way to get digital output if I don't have ADC module in my microcontroller (using GPIO)
 - Next question was about to view a signal of 1 MHZ on CRO what should be the capacity of CRO
 - Then they asked me do you know Nyquist theorem of sampling and told me using this you can calculate the capacity of CRO.
- Round 2 (It was for 15 min Skype interview)
 - Again he started with the profile I am being interviewed for and asked me what do i know about it (i told him whatever I came to know about the profile from the last round).



- Then he asked me about I2C protocol (almost everything about it, how will the waveforms appear in the CRO)
- He asked me about I2C because i have written about my I2C device driver project in my resume.
- So one should have proper knowledge about their projects.
- There were questions such as what will you do if you don't know the slave device address (i.e. what will you do if you don't have the datasheet of the sensor or device you are having, for communication b/w master and slave)
- Round 3 (It was for 40 min telephonic)
 - Started with RISC project.
 - Differences between CISC v/s RISC.
 - Which one you will prefer, and why??
 - Examples of CISC/RISC processors, (why are they still using one (CISC) if the other (RISC) is better, vice-versa)
 - o can you execute all of CISC instructions in a RISC (vice-versa)
 - What happens when any interrupt occurs?
 - Interrupt service routines and what will you do if it takes so much time to execute ISR.
 - Top halves, bottom halves and what will you do if another interrupt comes before the previous interrupt is executed by bottom half.
 - He gave different interrupt events and asked me which part i will execute in top half and which part i will execute in bottom half.
 - o can i use static keyword in ISR.
 - Then asked me how much knowledge I have in C.
 - o Dangling pointer (Not direct question) , what will you do to avoid it
 - NULL pointer
 - What do you mean by null??
 - What is the use of static variable in c??
- Round 4 (HR telephonic 40 min)
 - o Tell me about yourself (asked in all of the above rounds)
 - o why are you interested in this profile and what do you know of it
 - o what makes you fit for this profile
 - o why did you leave your previous job
 - what are you looking forward in cypress
 - what is your aim , what do you want to do in your life
 - He asked me to give any project overview, not in technical terms but a brief overview , challenges you have faced, how did you share the work (if the project is not individual)
 - Are you ready for relocation?? etc.,

Sources of Preparation

- Embedded System Design and Device Drivers (Devesh Samaiya sir slides, and revising lab experiments of ESD once are enough)
- CISC, RISC Architecture (Guru Narayan sir slides)

Other Relevant Information

- During our placements time, company did not visit the campus, so it was like this; normally they have a different way of interviewing a candidate.
 - There will be three rounds of total and there won't be any HR round as such.
 - First round will be a round named WOLF PACK round in which there will be a minimum of 4 - 5 interviewers who will be shooting questions at you continuously (from different domains) and see how you will perform under pressure.
 - If you clear first round then the ball is in your court then there is nothing you got to worry about next rounds will be kind of formal interactions and about your projects.

Sector: ET

Name: Sanchit Agrawal (2016H140106P) Company: Mediatek

Profile: ASIC ENGINEER

Recruitment Procedure -

- Online Test (No negative marking 🔾
- Technical Interview (1 only)
- HR Round

Online test consisted of 3 sections (47 Questions) which were -

1. Aptitude (10 questions in 12mins) – Questions were from time and work, logical reasoning (Venn diagram), and some basic aptitude questions based on mathematical reduction.

2. Basic Engineering – This section was comprised of some questions from computer architecture, OS, digital electronics (basics) and EDC.

3. Hardware – Basic questions from VLSI, CMOS, Digital electronics, and Verilog.

Note – Some questions may be very much out of the box, so just try the lottery procedure on them instead of wasting time.



• **Technical Interview** – My interview was taken by a back end guy so he was more interested in my circuit designing part instead of digital related (Verilog, STA) things. But do note that your interview may be purely based on STA and Verilog questions as it purely depends on the panel taking your interview. So be prepared for both.

He asked me about my projects, how I designed them, what were the difficulties faced while designing and how I overcame them. Try relating each answer with VLSI concepts as it makes a good impression. Use diagrammatic explanation as much as possible.

They may ask some unexpected questions also from your projects, one such question what is the area of layout of one of the project that I designed, so be prepared for these questions also.

They also asked some basic VLSI questions, one which I can remember is -

What is the effect on speed, power and performance as we move from higher L to submicron devices and why?

Note - This was not asked from me but your interviewer is from front end, he will surely ask you the difference between sync and async reset, and circuit designing for given duty cycle.

• **HR Round** - This is actually just a formality round until you yourself screw it.

Questions were –

- Why Mediatek?
- Family background and future plans.
- Why VLSI as you are from Embedded and so on.

Sources of Preparation -

- vlsi expert (web source) STA
- Digital Integrated Circuits Rabaey
- Morris Mano Basic Digital Concepts
- Samir Panitkar Verilog

Courses and Certification – No specific course or certification required.

Other Relevant Information – Interview will be easy just focus on the basic concepts and be thorough with your projects.

Try to interact with interviewer as much as possible.

Sector: ET



Name: Nandan B R (2016H140108P) Company: Media Tek.

Profile: ASIC Dessign.

Recruitment Procedure

- Written test, Technical interview, HR.
- Written test has three parts 1st part is Aptitude, 2nd part is Engineering Basic questions of gate , Verilog and VLSI questions.
- Technical interview was completely based on Verilog, STA, about projects of VLSI, Some questions are also on Clocking circuit.
- HR questions are simple and easy to answer.

Sources of preparation

For aptitude refer ARUN Sharma, and for technical questions refer gate materials. For Technical Interview from various Web pages and Book by Kang. And prepare your projects well for me they did not ask any questions on project.

Courses and Certification

Courses related Microelectronics and they did not ask any question on my internship and certification

Sector: ET

Name: Roshan Jayswal (2016H124056P)

Company: Mediatek

Profile: LTE Protocol Development Software Engineer

Recruitment Procedure

- Online Test, Technical interview, HR
- Test consisted of 4 sections
 - a. Aptitude (12 questions-20 min)
 - b. Engineering Basics (12 questions-20 min)
 - c. C Programing (18 questions-30 min)
 - d. Communication/VLSI Hardware (One of two-18 questions-30 min)



- 1) In all there were 60 questions for 90 minutes with no negative marking for wrong answers. There was sectional timer for each of the sections in online test as indicated above.
- Aptitude questions were above moderate level with 3 to 4 questions from Data Interpretation. Engineering Basics included the questions from OS, basic technical knowledge of day to day devices & all(for eg: Memory used in Pendrive is : ROM, RAM, non-volatile, etc)
- 3) For C-programming, questions from <u>indiabix</u> website & Let us C book by Yeshwant kanetkar is more than enough.
- 4) For communication, questions were mainly asked from Digital Communication & Mobile Personal Communication.

Interview Experience

1) Interview was long & rigorous through Skype from Hyderabad campus with major focus on projects, mobile communication & OS as well as C-programming & Datastructures.

Sources of Preparation

Wireless communication by Rappaport, Andreas Molisch book for wireless communication, wireless communication by Andrea Goldsmith, online videos for LTE, WCDMA, OFDM & massive MIMO, C programming & datastructures by Yeshwant kanetkar

Courses and Certification

Advanced digital communication & wireless communication

Other Relevant Information

There will be a rigorous interview process with questions starting from basic to advance level in projects, technical subjects & Datastructures. Be calm & try not to be incorrect while answering basic questions, which might lead to rejection in first round of interview.

Sector: ET

Name: Ankit Pareek (BITSID)-2016H123136P Company: MediaTek Profile: Engineer Recruitment Procedure- 2 Rounds (Technical + HR)



Description Technical Round- He asked me to describe my project. The questions from the project were general like what were the problems that you faced, what were the challenges. In the 2nd project he asked the same questions and about backend design flow. Read the projects carefully and try to explain the projects in simple way.

Description HR Round- Genaral questions

- 1. What do you know about MediaTek?
- 2. what are your strengths?
- 3. Why we should hire you?
- 4. What is your passion?

Sector: Pharma Consultancy/ Analytics. Name: Mansi Mohan Deshpande Company: Value Edge Research

Profile: Trainee Analyst

Recruitment Procedure:

- 1) Resume Shortlisting
- 2) Aptitude Examination

It had three sections, English, quantitative aptitude and Pharmacy related questions.

English section basically had 2 passages, sentence correction questions and some synonyms types of questions. Level of questions was medium.

Quantitative aptitude comprised of 10 questions on ratio proportion, probability, boats and streams, time and distance etc.

Pharmacy section had 15 questions on Clinical research, IPR, Pharmcology and current affairs. Questions were asked on current mergers and acquisitions.



- 3) Technical round 1
 - Tell us about yourself
 - Goal of your life
 - Why non core? Why value edge? (you have to give convincing answers on why you are selecting non core sector)
 - Case study regarding pharmaceutical market. (Thinking out loud is important. Let the interviewer get to know your approach.)
 - Questions related to IPR and Clinical Research
- 4) Technical round 2
 - Again questions related to clinical research
 - Puzzle

Sources of Preparation: There are many books and websites available for aptitude. I referred Indiabix and careerbless websites. Also referred to Mathematics made easy by Dhaval Bhatia for faster calculations.

Information related to Pharma Market can be taken up by Pharmabiz and Pharma.iq.

Courses and Certification: Company expected none but if you have any certifications, questions will be asked regarding it.



Other Relevant Information: study on how to solve guesstimates. Understanding the approach required for it is necessary. Should have knowledge regarding various regulatory agencies and drug approval processes. Development of conversation skills is important. Mainly fast thinking and approach towards questions is seen by interviewers.

Sector: Pharma.

Name: Shalini Dhanyakumar Patil Company: VALUEEDGE

Profile: Trainee Analyst

Recruitment Procedure :

1. Test 1- written.

Included Quant Aptitude questions, Grammar questions(many paragraph based questions), Technical questions and few pharma current affairs questions.

- 2. Interview 1
- 3. Interview 2

Both the interview included similar kind of questions related to,

A. Clinical research application

- Do you know anything about Clinical research?
- Tell me about different phases of clinical trial.
- Diff between phase 3 and phase 4.
- Why do we need to do so many phases?
- Have you ever visited clinicaltrials.gov website? How useful did you found it?
- Why we do not take diseased patient in phase I clinical trials?
- B. IPR-
 - Tell me about Para fillings if you know.
 - Tell me about different types of patents.



C. Logical reasoning- puzzles.

- Suppose there is a circular paper. In how many minimum cuts you can cut it to make 8 equal pieces. Ans is 1.
- There are 3 boxes of 3 different color and there are balls in each box with different color in each randomly assigned but corresponding to the three colors of the boxes. In how many moves can you identify which box has which color ball answer is 1

D. Case study (Guesstimates)

- Suppose our client has his drug in phase 3 currently, and he wants to know the revenue generated from the same in terms of million dollars in 2020 i.e. 3 years later. What all factors will you consider to calculate the same and calculate with a dummy number.(Numbers don't matter to them, only different factors which you consider matters)
- Data was given, and I was asked to represent in a best possible way.

E. HR type questions.

- Question regarding my internship, like what I did there?
- What have you done apart from your academics?
- Why do you want work in Noida, when you might get similar opportunities in Mumbai?
- If you get an opportunity to choose either Mumbai office or Noida office which would you choice?
- If you will uncomfortable with your new location what would you do?
- If you feel your project boring or unintrested in, what would you do?
- •

Sources of Preparation

APTITUDE – R. S. Aggarwal, indiabix.com TECHNICAL – Subject books/ notes.

Courses and Certification

Learn case studies from internet sources, youtube and quora, etc.

Other Relevant Information

Subjects to be strong with , Clinical Research, Intellectual Property Rights(IPR) , Quality Assurance & Regulatory Affairs(QARA).



Sector: Mechanical Name: Varun Kaushik (2014A4PS780P) Company: Nestle Profile: Technical Management Trainee Recruitment Procedure:

Resume Short listing followed by Group Discussion. Group Discussion was on general topic rather than abstract. Short listed candidates were called for technical interviews. The interview was mainly focused on Power plant engineering, Refrigeration and Air conditioning and PMFM. It was kind of a Stress Interview.

Then there was an HR interview that was mainly focused on not pursuing higher studies. They asked other questions like: How did you manage a team?.

The technical interview was tough and tested the in depth knowledge of the core subjects.

Sources of Preparation Power plant engineering and RAC books and class notes.

Courses and Certification Power plant engineering, RAC, QCAR.

Sector: Mechanical Name: Anirudh Mittal (2014A4PS368P) Company: Nestle

Profile: Technical Trainee-Operations and Maintenance

Recruitment Procedure

- Resume Shortlisting, Group Discussion, HR Interview, Technical Interview
- For Resume Shortlisting CGPA>7



- For GD general current affairs topics like "Should National Anthem Be Played In Cinema Halls" and is of 15 minutes
- Questions for HR Interview(10 minutes)
 - o Tell us about yourself
 - o Describe a situation in which you have compromised yourself for the sake of your team
 - o Why Nestle
 - o They ask you to describe your projects
 - o Follow up questions on whatever you answer
 - o Some technical questions also like "factors responsible for designing air conditioning system for a mall" and from heat exchangers also.
- Questions for Technical Interview(20 minutes)
 - Subjects such as Refrigeration And Air Conditioning, Power Plant Engineering, Prime Movers And Fluid Machines, IC Engines are very important specially first two subjects.
 - Though the job description asked for topics like TPM, Lean, DMAIC, Fishbone Diagram, Root Cause Analysis, Breakdown Analysis but no questions were asked from it.

Sources of Preparation

- Class Notes and Slides are enough
- Could practice questions from "https://www.indiabix.com/mechanicalengineering/questions-and-answers/"



Courses and Certification

- Refrigeration And Air Conditioning(Compulsory)
- Power Plant And Engineering(Compulsory)
- Quality Control

Other Relevant Information

- Have through knowledge about company as in how it works, its scale etc.
- Also CGPA>7.5 is good enough but lower your CGPA , better you have to perform in interview as they take only 1 to 2 candidates.
- Should know your resume thoroughly and be confident.

Sector: Consultancy

Name: Shivani Taskar (2014A5PS523P) Company: ZS Associates Profile: Business Operations Analyst Recruitment Procedure

1) Aptitude test: 5 sections consisting of Verbal, Quant, Data Interpretation, Attention to Detail and Logic questions

- There are sectional cut-offs so make sure to complete a significant amount of each of the sections
- Level equivalent to CAT, especially that of Quant

2) Video interview and written round: Both are conducted one after the other

- 8 HR questions and guesstimates (3 minutes to answer each one) make sure you know your CV very well and are able to justify your thought process behind your PoRs and work done during internships
- 3 HR written questions in 15 minutes: Behavioural questions which require some introspection and justification eg: What makes i)others like you ii)you difficult to be around?



- 3) Case Interview Round
 - A 7-8 page case consisting of a lot of tables and written information about a business situation
 - 4 questions with 2 subparts each to be solved in 30 minutes –Heavily quant and data interpretation based
 - Interview consisted of explaining my answers, thinking of additional ways to approach questions and logical questions pertaining to specific industry mentioned in the case competitors, complements, substitutes etc.

4) HR Round – Other candidates had a 1 hour HR round consisting of resume grilling and guesstimates. I didn't have to sit through this round though.

5) Principal round: A principal has a 15-20 conversation with you to judge your fit in ZS. Typical questions like "Tell me about yourself", "Why consulting", "Why ZS".

Very relaxed atmosphere

Sources of Preparation

CAT material, Case interviews Cracked

Courses and Certification

No specific courses. But be prepared to answer questions related to whatever you've written. For eg – the Principle asked me instances where my Minor in Finance knowledge was helpful in my Consulting projects

Sector: C&A Name: Swapnil Bhattacharya (2014A1PS684P) Company: ZS Associates

Profile: Business Operations Associate



Recruitment Procedure

- Online Test, Behavioural Interview, Case Interview, HR
- Test had 5 sections:
 - a. Verbal: This section had passages and questions related to the passage followed.
 - b. Data Interpretation: This section had various tables and graphs which one had to analyse and answer the questions that followed.
 - c. Quant: Questions based on basic mathematics were asked.
 - d. Logical reasoning
 - e. Eye for detail: Puzzle type questions which test your attention skills.
- Test was easy but a little lengthy. It is quite important to time yourself in order to answer the questions correctly. The test had 60 odd questions and the entire test was timed (roughly 70-75 minutes).
- Behavioural Interview had questions relating to different situational analysis i.e. putting a person in different situations and checking their response to the same. It also tested the analytical skills of the candidate by asking simple guesstimates where approach matters and the answer is not really important. The test is taken to check the qualities of the candidates if they would be able to work with ZS or not.
- Case Interview: This round involved a written case study with 3 questions having 2 or 3 sub-parts. We were given 30 minutes to solve it and then we had to explain our logic behind the answers to the interviewee. The case study was based on marketing and targeting customer segments.
- HR Round 1: This round involved asking a few basic questions like 'Tell me about yourself' and some questions on my resume. It also involved a few quant questions and some puzzles. A simple guesstimate was asked. It will useful to have some ideas about the population of India, GDP, rural/urban population division, age groups, income groups etc. as they will help you with the guesstimates. Various guesstimates are available on internet to practice.
- HR Round 2: This round was a principle HR round with questions based on different scenarios as well as questions like 'Why ZS' or 'Why Consulting' and follow up questions as well. It is important to understand these questions and answer accordingly. Examples based on real life situations as well as your motivation would be quite helpful. One can also relate with PORs if one has these.

Sources of Preparation

- One can search the internet for the various data related to population of India, GDP, rural/urban population division, age groups, income groups etc. on the internet.
- One can also use books such as Case Interviews Cracked or Ace Your Case for different case studies.
- For aptitude, one can use the material for competitive exams like CAT or GMAT.



Courses and Certification

- Projects and internships would help you make your case in the interviews and help you to answer questions. It is quite important to know the resume inside out as they may ask questions on your resume.
- Finance courses may help to diversify your resume but apart from this no course in curriculum would be very helpful.

Other Relevant Information

- Clearing the aptitude round should be the top priority for one as there are not only cut-offs but also sectional cut-offs may be there. The test may be easy but a lot of people get stressed out and end up doing badly in the test. Do practice for some time before attempting the final test.
- The case interviews as well as the guesstimates require some amount of general knowledge and it would be helpful if one can learn the data related to population of India, GDP, rural/urban population division, age groups, income groups etc. beforehand so that it will helpful. Also practice guesstimates and case studies as well as read your resume thoroughly as questions will be asked from it.

Sector: Consultancy & Analytics. Name: Akshansh Rai(2014A2PS788P) Company: ZS Associates

Profile: Decision Analyst Associate

Recruitment Procedure

The entire procedure was divided into 4 rounds:

- Online aptitude Test: Quant, Data Interpretation, Verbal Ability, Logical Reasoning, etc. Questions similar to what you might see in CAT or other competitive exams.
- Video Analysis: Video and written response of candidates in different behavioural situation was recorded and submitted in real time. It lasted for around 45mins.



- Case Interview: A case was given to us, with three questions (two sub-parts each). Half an hour to write out solutions. After this, there was an interview discussing the resume points and the solutions of the case.
- HR round: It involved scenario based questions testing the candidate in different behavioural situations and seeking their response. A guestimate question was also asked.

Sources of Preparation

- Aptitude: There are plenty of test prep books and websites you'll find to practice aptitude. If you're preparing for CAT, then TIME or IMS material would be sufficient. The pre-placement workshop was sufficient for my practise.
- Guesstimates and Case Study: There are a number of consulting books and websites available for practise like Case Interviews Cracked, Ace Your Case, Case In Point, Preplounge and Victor Cheng videos. I had also attended a pre-placement workshop conducted by the Case-Solvers which familiarised me inside out with the processes involved in a case interview.
- HR: Google 'HR Interview Questions' and prepare answers for the common ones. Indiabix has an exhaustive list of questions.

Courses and Certification

No course pre-requisite as such but courses like principles of economics, and other finance courses can help you with an expanded perspective.

Other Relevant Information

- Don't take aptitude lightly. Practise enough types until you have confidence and accuracy of completing questions within the time frame. Also there are sectional cut-offs, so speed is very important.
- Guesstimates and case interviews require an analytical approach of breaking down the problem into smaller solvable ones. Try to be logical and data driven. Practise enough guestimates and data interpretation questions to feel confident in an interview scenario. Also you can practise case study with your friends interchanging the role of interviewer and interviewee.
- You should be thorough with all the points mentioned on your resume along with possible follow up questions. Take a step back and introspect your life



experiences which will help you answer the HR questions. Try to be genuine and back every behavioural answer with a life experience. This increases credibility. PORs and project experiences will give you talking points in this.

Sector: Consultancy/ Analytics. Name: Shubhangi Jasoriya (2014A1PS608P) Company: ZS Associates

Profile: Decision Analytics Associate

Recruitment Procedure-

• Aptitude Test, Video Assessment, Case Study, Behavioural Interview, HR

Aptitude Test comprised of sections including verbal, logical reasoning, quant, and data interpretation.

- 60 questions were to be done in 75 minutes.
- Some questions were lengthy and some were difficult, overall the paper was not that tough but time management was needed.

Video Assessment was to be done by shortlisted students via laptops or mobiles. HR questions and guesstimates were to be answered while being recorded.

Case Study round was done in Gurgaon . We were given 10-11 sheets full of data in graphs and pie charts and some questions were to be solved. It was mostly data interpretation based.

Behavioural Interview Mostly guesstimates and aptitude questions were asked along with a lot of cross questioning on resume and basic qualities like team working and leadership.

HR Mostly resume based and 5-10 year plan, Why ZS etc.



Sources of Preparation

RS Aggarwal, Books like Case interview Cracked, Case in point Courses and Certification Not required but be prepared to answer why consultancy and not core Other Relevant Information Soft Skills and presentation should be good.

Sector: Consultancy & Analytics Name: Harshal Gupta(2014A4PS380P) Company: ZS Associates

Profile: Business Operation Analyst- BOA

Recruitment Procedure

- Resume Shortlisting, Online Test, Video Interview, Case Study and HR.
- Test had 4 sections:
 - a. Verbal- based on a short passage, to verify the inference given and also some sentence rearrangement in order of reading.
 - b. Data Interpretation- A little on the tough side, so come prepared for it.
 - c. Quant Simple questions but make sure to complete in time.
 - d. Brain Teaser questions such as solving the next pattern, terms of series etc.
- Test was intermediate. However, it is important to maintain speed to finish all questions. Going back to previous question is allowed, also flagging option was given.
- Video Interview
 - a. Two things you would like to change about yourself.
 - b. How do you fit in this role.
 - c. Guesstimates based on simple reasoning.
- Case Study- Solve at least 20 case studies before appearing for this round and also practice with your friends.
- HR round- Basic questions like tell me about yourself, strength and weakness and then questions followed from these.

Sources of Preparation

Search for generic puzzles, also study case in point for guesstimates and case based questions which were asked in the previous year (2015)

Courses and Certification



No subject as such.

Other Relevant Information

Most job interviews and not just axis bank are FIT based rather than SKILL based. You need to be able to convince the recruiter why you wish to join that particular organization and not work in some other sector.

To answer this, apart from preparing about that one company, you need to know of other job opportunities specific to your profile and then justify why this job among all the choices you have.

Sector: Consultancy

Name: Niharika Agarwal (2014A1PS486P) Company: ZS Associates

Profile: Decision Analytics Associate

Recruitment Procedure

- **Aptitude Test:** There were 4 sections- Verbal, Data Interpretation, Quant, Attention to Detail. There were also sectional cutoffs. Around 30 people were shortlisted after this test.
- **Behavioural Assessment (Video Interview):** HR questions and guesstimates were asked in this round and there was a short 15 minute written round, again with HR questions, asking you to describe yourself, your experiences as a member of a team, etc. This round eliminated 50% of the candidates.
- **Case Solving:** 30-40 minutes were given to solve the written case which basically was based on data interpretation.
- **Case Interview:** Here you need to explain your thought process in solving the case to the interviewer, while he/she scans through your resume.
- **HR Interview:** This round includes fit questions along with a bunch of guesstimates and a discussion over the candidate's resume.



Sources of Preparation: Practise aptitude tests on indiabix.com, and have stories prepared for all points on your resume. For the case, you may watch Victor Cheng videos and go through his book for the written case interview.

Courses and Certification: There is no such particular requirement.

Other Relevant Information: It is important to pay attention to the section-wise cutoffs in the aptitude test. Also, during the case interview, don't dwell too much on each question, they're simple numerical problems and over-thinking may complicate them.

Sector: Consultancy/ Analytics.

Name: Ankur Tiwari (2014A1PS546P) Company: ExxonMobil

Profile: Not yet disclosed.

Recruitment Procedure.

- 1. Resume.
- 2. Aptitude test. (Not sure if both of these were used anywhere though)
- 3. Group Discussion.
- 4. Interview Round -1 (on campus)
- 5. Final Interview (Bangalore)

Sources of Preparation.

- 1. For Resume look at seniors' resumes.
- Apti It would be better if you have some book or TIME's CAT material. Books such as R. S. Agrawal etc would do. Online forums such as Indiabix etc would also do.
- GD Go online, look for currently trending GD topics. Look for what topics they generally give. Read news. Quoting incidents from news is extremely essential. The GD topics are usually aligned with the current news.
- 4. Interview The interview questions are generally based on your Resume. So, make sure you know your resume in and out and don't put random crap in it. Make your resume robust, not flashy. Most of the interview is behavioral and you know what they're testing when they ask you a question, so if you're lying about



something, they most probably will catch you. So, the best strategy is to just be truthful and be yourself – DO NOT TRY TO FAKE.

5. Final Interview – More of the same. I tried to give some humorous answers to the questions that were supposed to make me nervous – worked for me. Try at your own risk though. Try talking to other seniors, get their opinions.

Courses and Certification

None required. Just be thorough with your projects and internships.

Other Relevant Information

Look at other blogs and posts regarding what type of questions are asked in a behavioral interview and try to prepare the answers of such questions on your own.

Sector: Consultancy

Name: Ramandeep Singh (2014ABPS862P) Company: Kinapse

Profile: Analyst-Advisory services

Recruitment Procedure

The process had 4 rounds – Resume short listing, HR + Guesstimate Round, Case Interview, Final round

(1 guesstimate and HR questions)

HR + Guesstimate round: (Telephonic)

- Basic question: "Walk me through your resume"
- Interviewer was really interested in my internship (if you have some prior experience in consulting, you get brownie points)
- Be thorough with your projects especially with the one you are currently pursuing
- I was also asked about my strengths and why I wanted to get into consulting
- Lastly, a guesstimate: No. of petrol pumps in India. They are interested in your approach and reasoning. Once you come up with the final number, they grill you on it and check if you can refine the number better or if you can find out flaws in your approach. Prepare guesstimates well.



Case Interview: (Video call)

- Was handed a case on profitability. One page long. Pretty complex and multifaceted. 15 minutes to structure my thoughts
- First question: "What is your understanding of the case?"
- Then, I was asked to share my framework. Make sure you are on the same page with the interviewer, think out loud, mention your assumptions and try to relate to personal experiences.
- You can always say: "I am thinking of looking at the problem from this angle since in my experience......Do you agree? Shall I go ahead with my assumption" They'll reply in affirmative or correct you. Just be calm and logical
- Lasted an hour.

Final Round: (Video Call)

- I was expecting only HR questions since only 2 students reached the final round
- But, I was handed one more guesstimate: "Market-size for washing machines in India"
- This round was very exhausting: I was questioned on each assumption of mine. Had to clearly provide reasoning for each
- The key is to think out loud so that you align yourself with what they want. They asked me to refine the final number. I was asked if the actual figure would be higher/ lower than my guesstimate
- I was asked to differentiate between market-sizing and guesstimating. Also, a few questions on POE on inflation, buying power. Brush up your POE concepts.

Sources of Preparation

- Case Interview Cracked
- Columbia Business School Casebook, Wharton casebook
- BPCC casebook
- Victor Cheng's Workshop Videos
- YouTube channels
- <u>www.preplounge.com</u>

Courses and Certification

NONE

Other Relevant Information



Consulting interviews are different from other interviews. There is a lot of discussion with the interviewer. You should have strong communications skills and know a few business jargons.

Silly calculations mistakes can be a deal-breaker. So be good with numbers.

And lastly, relax before, during and after the interview. Best of Luck !

Sector: Consultancy/ Analytics.

Name: Rishabh Gupta (2014ABPS855P)

Company: Schneider Electric India Pvt. Ltd.

Profile: Business Analyst

Recruitment Procedure

- Online Test
- Test had 4 sections:
 - a. Verbal- based on a short passage, the only type of question was to identify if the given statement can be inferred from the passage or not.
 - b. Data Interpretation
 - c. Quant
 - d. English
- Test was easy. However, it is important to maintain speed to finish all questions. Going back to previous questions is allowed.
- Questions:
 - a. Tell us about yourself
 - b. Follow up questions from what you answer
 - c. Explained about internships and app development process.
- Online Test, PPT, Tech1, Tech2, HR

Sources of Preparation

HR questions from internet

App development process management and team dynamics



Courses and Certification

No subject as such. Manufacturing management, project management, Prod Development etc. subjects could prove useful.

Other Relevant Information

Most job interviews are FIT based rather than SKILL based. You need to be able to convince the recruiter why you wish to join that particular organization and not work in some other sector.

To answer this, apart from preparing about that one company, you need to know of other job opportunities specific to your profile and then justify why this job among all the choices you have.

They wanted innovative flexible people to work on IT development projects.

They were mainly interested in my work on Campus Safety App Development as a part of Safety & Medical Advisory Council, and Bharat Forge internship's RFID project related to SAP.

Sector: Civil/Banking&Finance

Name: Anurag Agrawal (2014A2PS524P) Company: ICICI Bank

Profile: Mortgage Valuation Group

Recruitment Procedure

Group Discussion, Personal Interview

- For GD basic, standard preparation is good enough.
- Interview Questions:
 - o Tell us about yourself



- o Very Basic Civil Engineering questions
- o Questions related to projects, internship etc.
- o Follow up questions from your answers

Tip: Don't say or put anything on your resume that you are not comfortable with.

Sources of Preparation

Go through internship and project reports and try to be thorough. Also study a bit about cost estimation, valuation etc. covered in CPT(especially the Revit project).

Courses and Certification

Not required specifically but some background in finance is desirable.

Sector: Banking & Finance Name: Siddharth Sen (2014A4PS364P) Company: ICICI Bank

Profile: Management Trainee

Recruitment Procedure:

Online Personality Quiz (OPQ), Resume Shortlisting, Group Discussion, Interview

- The <u>online test (OPQ</u>) consisted of 104 questions.
 - a) Questions were very generic about yourself, and how would you behave/react in different situations.
 - b) The key here is to be genuine and consistent in replying the questions, as after a particular point the questions start repeating to some extent.



- c) It is suggested to take the test instinctively rather than consider what ICICI is looking for in a candidate while taking the test.
- <u>Group Discussion</u>: Just like any other group discussion, except that the topic was given to us in the form of a passage. Candidates were allowed to think about the talking before starting the GD for about 5 minutes (time was more than sufficient)
- <u>Interview</u>: The interview was very general, mostly resume based. So, it is a must to know your resume inside out. Other than that, questions were as follows:
 - a) Tell us about yourself
 - b) Why banking instead of core engineering?
 - c) What technical proficiency do you have?

Sources of Preparation

- Nothing to prepare as such. However, it is a must to have a general idea about the banking sector, basic financial terms and about the company.
- To answer questions like 'Why Banking', refer to the link for generic guidelines https://testbook.com/blog/ten-reasons-why-you-should-join-the-banking-sector-in-india/

Courses and Certification

No courses necessary. However, finance courses such as SAPM, DRM might benefit. Preparing these subjects might be useful.

Other Relevant Information

Most job interviews and not just ICICI Bank are FIT based rather than SKILL based. You need to be able to convince the recruiter why you wish to join that particular organization and not work in some other sector.

To answer this, apart from preparing about that one company, you need to know of other job opportunities specific to your profile and then justify why this job among all the choices you have.



Sector: Banking&Finance Name: Videhi Shah (2014A1PS534P) Company: ICICI Bank

Profile: Management Trainee

Recruitment Procedure

Recruitment Procedure

- Resume Short listing, Online OPQ Test(Character Assessment), Case Study Discussion, Pl
- They usually have a CGPA cut-off of 8.
- The OPQ test was simple. Just try to be honest while giving the test.
- Case Study was generic. My case study was on technology innovation and changes that can be expected in consumer behaviour, social paradigms by 2020
- The PI involved the following components :
 - a. Walking the interviewers through the resume
 - b. Elaborating on projects, internships and PORs
 - c. They asked me if I had encountered any conflict while working in a team. And if yes, how did I handle it?
- Also asked me about my technical proficiency in MATLAB (the profile might involve Analytics so they look for people who have some experience in C/MATLAB

Sources of Preparation

For the case study, prepare topics online. Search for ICICI Classic case study examples. Also go through interview questions on Glassdoor and Ambition Box.

Courses and Certification

Some knowledge in Finance and Banking sector will be useful. One can do a couple of finance courses and also have a little experience with programming languages.

Other Relevant Information

You need to be able to convince the recruiter why you wish to join that particular organization and not work in some other sector.

To answer this, apart from preparing about that one company, you need to know of other job opportunities specific to your profile and then justify why this job among all the choices you have.

Sector: $|\mathsf{T}|$

Name: Shaik Mohammed Rabi Rashid (2016H1490240P)

Company: Accenture-Technology

Profile: Domain Expert

Recruitment Procedure

Resume shortlisting, 2 Technical rounds, 1 HR round

1st technical round started with routine questions like "tell about yourself, your interests etc.", followed by the questions based on my resume and my answers to them. Questions included logical questions, speed maths, hypothetical decisions to be taken as a manager in case of the closure of a domain or vertical. Approach was observed more than the answers.

 2^{nd} round had few questions on my summer internship and role in the positions held at MBA. This recruiter had spent $\frac{3}{4}$ of the time on knowing the reason for my low grades. This might have been the test for emotional intelligence as he was questioning constantly trying to see me breakdown. He was finally satisfied by my answers and appreciated.

The final HR round was easier one. The HR asked common questions like "why I left my job, what's my expectations etc." all the while I could see that she was assessing me on communication, confidence, presentation skills. There was no chance for negotiation of salary as she started with saying that salary is fixed.

Sources of Preparation

Summer internship, peer learning.

Sector: IT

Name: Souradip Ghosh (2016H1490247)

Company: Accenture

Profile: Senior Analyst (Technology Consulting)

Recruitment Procedure - It all started with resume shortlisting and then there were 2 technical and 1 HR round. For the 1st technical round, I was asked mostly from my resume (in detail) – ranging from SIP to previous work-ex, courses, areas of interest. Be prepared to think out of the box. I was asked anything and everything but it was a very open interview. I



was also asked about personal details, aspirations, etc. In the 2nd technical round, for me it was mostly HR based questions, tricky ones at times, trying to test the depth and mentality of the candidate. The final HR round was mostly HR based questions and compensation.

Sources of Preparation – online mostly. Project management, Software engineering, preparing everything that was there on the resume, about courses and certifications, about new technology like blockchain, AI, etc.

Courses and Certification

Project management, market research, analytics and data presentation.

Other Relevant Information

Just be prepared to think out of the box. There is no specific answer to most of the things that are asked. They don't check your mugging up skills, but the way you process information and provide solutions. You can contact me for more detailed info (interviews related to IT domain mostly for BA/SBA roles).

Sector: IT Operations

Name: Madhuri U (2016H1490207P) Company: Accenture

Profile: Supply Chain domain specialist

Recruitment Procedure

- Resume shortlisting
- Interview 1 Casual interview. Resume based questions. I was asked questions based on the Ariba and e-reverse auctions, oracle erp, overall procurement to pay cycle followed at Schneider electric(my previous company)
- Interview 2 More questions on work I had done in my previous company. A. What is FIFO and LIFO and their significance?

B. Why your GPA is low and why should I hire you? (Justify your answer with real time life experiences)

• Interview 3 – HR Interview

Asked the names of previous 2 interviewers. Told about the salary structure.

Sources of preparation

Regular ET reading, basics in supply chain



Courses and certifications

Nothing as such was enquired about. But a feedback was given to all the selected candidates that required courses related to AI, cloud and happening technologies were missing in the curriculum.

Other relevant information

Have a good knowledge about company, its products and latest trends in domain.

Sector: Consultancy[Research & Benchmarking team]

Name: Nikita Vasudeva (2016H1490244P) Company: KPMG Global Services

Profile: Business Associate

Recruitment Procedure:

Online Aptitude Test, 3 rounds of interview (2 Technical, 1 HR)

- Test had 4 sections:
 - a. Verbal
 - b. Data Interpretation
 - c. Quantitative
 - d. Essay writing (mostly on current affairs). Topic was on Demonetisation being a boon or bane.[this is a 10 minute section]
- Test was not tough; however, there were sectional cut off(which most people miss out on in the instructions) so it is important to maintain speed while at the same time attempting more than 70-80% questions at least with accuracy in all sections.
- The first Technical interview revolved around the prior work experience, detailed and in-depth analysis of the same. To test the technical knowledge, some questions revolved around the electives pursued. For instance, being a Finance major, I was asked about the recent IPO's, most lucrative sectors to invest, rupee performance against dollar etc.
- Second technical round had questions on guesstimates, world affairs (e.g.- opinion on Trump's administration, thoughts on Brexit etc), awareness about surroundings(e.g. fees for B.Tech students in BITS etc.)



- HR round was a very straightforward, no pressure round. Interactive session with the HR, where the hierarchy of the company is explained, the kind of work that will be done, salary discussions etc.
- Each of the three interview rounds lasted between 30-45 mins

Sources of Preparation

For Guesstimates:-

- 1) <u>https://www.analyticsvidhya.com/blog/2014/01/tips-crack-guess-estimate-case-study/</u>
- 2) <u>http://www.vault.com/blog/interviewing/interview-questions-practice-guesstimate-questions-continued</u>
- 3) <u>https://mconsultingprep.com/case-interview-market-sizing-guesstimate/</u>

For quick formula revision

- 1) <u>https://www.indiabix.com/aptitude/time-and-distance/formulas</u>
- 2) <u>http://www.hitbullseye.com/acad/quant/Maths-Formulas.php</u>
- 3) <u>https://cracku.in/blog/quantitative-aptitude-maths-formulas-ibps-po-pdf/</u>

Courses and Certification-

I had Six Sigma, PMP certifications in addition to Equity Research and Risk Management. However, **none** of the certifications was mandatory for me to crack the interview. None of the questions in my interview revolved around the certificates. However, it is advised to be thorough with the electives opted and know the basic fundamental concepts. Reading ET regularly will definitely come in handy as well.

Other Relevant Information

Ensure that you are thorough with your resume. The first impression can easily be created with a good resume and it is easy to steer the interview in your control by building the interest of the recruiter based on the resume. Do not mention any such thing in the resume, which you are not confident of or cannot substantiate with data.

Sector: Camera Technologies, Machine Vision



Name: Shanmukha Priya C (2016H1490253P) Company: DreamVu

Profile: Business Strategist

Recruitment Procedure

- Resume shortlisting, Group discussion, Personal Interview
- The Group discussion was a combination of GD and GI. A rapid-fire round was also included Questions asked are:
 - o Introduce yourself and tell us why we should hire you?
 - What is your motivation to take up MBA? Discuss with the group and come up with some common points.
 - Rapid fire: Pick between high risk-high returns and low risk-low returns; arrange money, power & fame in order of your priority; would you sell a product to the customer or solve their problem?
- Personal Interview questions:
 - o Tell us about yourself
 - Follow up question from what you answer.
 - o Questions based on your resume

Sources of Preparation

No specific preparation as such. Look up about the company, the industry they are in and their competition to have a basic knowledge about the company and what they do.

Courses and Certification

No specific requirement for any certification. However, relevant certifications as per the role offered might be an added bonus.

Other Relevant Information

Go through your resume thoroughly and have justification and backing for any answer that you give. Do not waver or change your answer just because they cross question or counter your answer)

Sector: IT/ /Banking & Finance

Name: Chaitanayam (2016H1490241P)



Company: Cognizant Technology Solutions

Profile: Business Development Analyst

Recruitment Procedure

- Rounds-Resume Shortlisting, Video Interview, Technical Interview, HR Interview
- The Video Round included questions like- Tell us about yourself; Why Cognizant; Instances when you failed in your career; Instances on how you were able to overcome a difficult situation etc.
- Technical Round 1 lasted for about 50 minutes, which included the following questions-
 - The interview started with a general introduction and my past experience.
 - It was followed by an intense round of questions related to the electives that I had taken. The interviewer asked me both basic as well as advanced and conceptual questions from subjects like SAPM, BAV, RMI, PA and CFT.
 - The interviewer also asked me to explain my leadership roles and qualities, strengths, weaknesses and what all I had done to overcome those weaknesses.
 - Since I was being interviewed for Banking & Financial Services, he asked me questions related to the banking sector.
 - To check some logical/analytical capability, he also gave me a puzzle to solve.
 - At the end he asked another HR Question-Why should we not hire you?
- Technical Round 2 lasted for about 20 minutes, which included some questions related to current financial topics such as block-chain technology, fin-techs and a complete walkthrough of the resume.
- The HR interview started with an introduction followed by information on past work experience, family background, willingness to relocate for the job and salary discussion.

Sources of Preparation

Self-preparation through textbooks, internet and newspaper.

Courses and Certification

• Important Courses- Security Analysis and Portfolio Management, Business Analysis and Valuation, Risk Management and Insurance, Corporate Finance and Taxation

Sector: IT

Name: Maaz Shariq (2016H1490226P) Company: Cognizant (Not Selected)

Profile: Business Analyst



Recruitment Procedure

- Online SOP based shortlisting (Cleared)
- Video Resume Based Shortlisting (Cleared)
- Interview (Not cleared)

Interview Details:

- There were 2 profiles offered; BA for Banking & Financial Services and BA for CIS. I was "shortlisted" for BA in BFS. Note that it was not disclosed prior to application that we will be classified into these two domains without getting our priorities considered.
- The interview started on a very positive note and they asked me to introduce myself. As far as I remember I was confident enough.
- The interviewer was associated with the CIS function and asked me why did I apply for BFS and not CIS. I told the truth that it was not disclosed earlier and we have been clustered into this from recruiter side only.
- He then asked me where would I like to go if now given a chance and I replied that if given a chance now I would like to be associated with CIS.
- He then asked me a little IT and Technology oriented questions on Cloud Computing and my understanding of all what CTS does. I answered them with much confidence.
- From there he "seemed" interested and told a lot about the CIS function and that its not at all a hardcore coding profile and I will enjoy it.
- Post that he gave me a chance to ask any question if I have.... I enquired about what exactly is the nature of the project I will be associated it and the normal schedule and work profile of a BA in CIS domain. He explained each and every thing very satisfactorily.
- The interview got over on a very positive note as well and to be really honest I was almost 100% sure of getting into the next round of interview.
- To my surprise I was informed within 5 minutes that I have not been selected for the next round of interview. One thing which bothered me till last was that I was shortlisted for BFS but CIS guy took my interview first which was not generally happening with all. I didn't even meet the guy from BFS.
- Anyways whatever the result was, the entire process was very much streamlined and a learning experience for me keeping aside the lack of feedback and transparencies from the recruiter side.
- The Placecomm even asked them for the individual feedback post process but they didn't even reply.
- Advise to Junior Placement committee is to make things transparent from the recruiter side before their arrival at the campus like for what all domains they are looking to hire for.... what are the roles offered and will there be any criteria for shortlisting the



candidates into various sub domains? It well help the candidates to prepare better and make their mind $\ensuremath{\mathbbm Z}$

Sources of Preparation

- Primarily from their website and what exactly they are working on or heading towards.
- Try to get an insight on what are their areas of expertise and where they are trying to expand.
- Apart from that the basic conceptual concepts on marketing, IT and finance.

Courses and Certification

• Finance courses will give you an edge for sure as witnessed from our process.

