# How did you prepare?

### Top topics you prepared

Data Structures: Arrays, Strings, Stack, Queue, Heaps, Trees, Graphs, etc

OOPs (with C++): Inheritance, Polymorphism, etc

Operating Systems (OS): Process, Process Scheduling, Threads, Memory Management, etc

DBMS: Joins, Normalization, Transactions, SQL queries, etc

### Preparation Tips

Tip 1: Prepare your basic concepts very well.

Tip 2: Practice DSA consistently. Do 2-3 questions per day and actively participate in contests on various coding platforms like CodeChef, Codeforces, Leetcode, Gfg, etc.

Tip 3: Also practice basic aptitude questions.

# How did you apply?

### Where did you apply?

On Campus

### Any eligibility criteria?

7 CGPA and above. No active backlogs in any semester.

### Resume Tips

Tip 1: Do not mention things in the resume that you aren't fully aware about.

Tip 2: If you mention projects in your resume, be clear about the details of the project even if you have done it in a group. Prepare a brief description for each mentioned project.

#### Why do you think you were shortlisted?

I gave the optimised approach of each coding question asked. I discussed whatever approach came to my mind, even if I wasn't sure about it. I was very interactive during all the interviews and explained my approaches along with suitable examples.

# Number of Rounds

### How many rounds were there?

4

# First Round Details

### Round Type

Online – MCQs

### Platform

https://oracle.propaptitude.com/

### Duration Of Round (in minutes)

107 minutes

### Difficulty Of Round

Medium

### Description Of Round

The test was active on (September 07, 2021) from 7:00 PM to 9:00 PM.

The camera was on all the time. There were 4 sections. They included aptitude, coding based, computer fundamentals and comprehension based questions. All the questions were MCQs. Each section had a time limit.

### Why do you think you passed this round?

I managed my time efficiently according to the provided time for each section.

### Number of MCQs?

92

### MCQs Description

Aptitude (Verbal and Quantitative)

39 Questions (47 minutes)

Coding Skills

16 Questions (25 minutes)

Computer Fundamentals

17 Questions (15 minutes)

Contextual Knowledge

20 Questions (20 minutes)

Computer Science Knowledge was further divided into 3 sections

OS Concepts and Data structures

6 Questions (5 minutes)

Big O notations and OOAD Fundamentals

6 Questions (5 minutes)

DBMS

5 Questions (5 minutes)

### Problems Data

Some of the problems included: tree traversal, AVL tree rotations, radix sort, complexity analysis, etc.

### Tips for solving these problems

Time management was the key for this round as you can't go back to any previous section or question, once visited. The aptitude questions were easy but the time given to solve them felt a little less.

## Second Round Details

### Round Type

Video Call - interview

### Platform

Zoom

## Duration Of Round (in minutes)

30-40 minutes

## Difficulty Of Round

Medium

## Description Of Round

The round started at 12:15 pm approx. We waited in the assigned waiting room and when the interviewer was available, we entered a breakout room where one to one interview was taken. The camera and microphone were on all the time. The interviewer was really supportive and helped me in thinking about the edge cases in my approaches.

## Why do you think you passed this round?

I gave an optimised solution to the coding question asked. I presented and discussed my projects well.

## Problems data

## Problem 1

## Problem Description

Tell me about yourself

## Tips for answering

Tip 1: Include your technical as well as non-technical achievements and skills. Prepare this question beforehand as it is a standard interview question.

## Problem 2

## Problem Description

Briefly describe any one of the mentioned projects from your resume. Include the tech stack used.

## Tips for answering

Tip 1: Prepare a brief description for all your mentioned projects.

Tip 2: Talk about the motivation for doing this project, about team work and efforts (if the project is a team project), the challenges faced, your role in the project, etc

### Problem 3

### Problem Description

Variation of minimum number of jumps to reach the end was asked.

### Tips for answering

Tip 1: Try to think of an optimised solution as you will be asked about the time/space complexity and asked to further optimise it (if not optimised).

Tip 2:  Explain your approach with the help of a sample input.

Tip 3: Dry run the problem for some test cases by yourself before confirming that you're done with your code.

Tip 4: Check for corner test cases (if any)

## Third Round Details

### Round Type

Video Call - interview

### Platform

Zoom

### Duration Of Round (in minutes)

40 minutes approx

### Difficulty Of Round

Medium

### Description Of Round

We waited in the assigned waiting room and when the interviewer was available, we entered a breakout room where one to one interview was taken.

### Why do you think you passed this round?

I constantly tried to solve the asked questions in the best way possible. I carefully listened to the questions and verified if I got it correctly before proceeding with solving it.

## Problems data

## Problem 1

## Problem Description

Give a brief introduction about yourself. Include the non-technical aspects as well.

## Problem 2

## Problem Description

Find maximum subarray sum from the given array of size N. Only the subarrays having strictly increasing elements should be considered to find the maximum sum.

## Tips for answering

Tip 1: Talk about the problem using sample inputs and confirm if you've got the question right.

Tip 2: Look for the edge cases (for example, here, a single element is also a subarray and the whole array is also a subarray).

Tip 3: Explain your approach with the help of some examples.

## Problem 3

## Problem Description

Given an array of numbers and a target sum. Find if there's any subset in the array where the sum of elements is equal to the target sum.

## Tips for answering

Tip 1: Talk about the problem using sample inputs and confirm if you've got the question right.

Tip 2: Try to come up with an optimized solution. I gave the dynamic programming solution for this question.

Tip 3: Explain your approach with the help of some examples.

## Problem 4

## Problem Description

Questions related to DBMS were asked. The next question depended upon the keywords that I used in my previous answer.

Some questions: What is DBMS? How is RDBMS different? How can a million data entries be entered efficiently into a database? How can I group certain data that is to be stored in the database? On the basis of what parameters can I divide them? What commands are used to delete rows? What is the difference between delete and truncate command? Which one of them is faster and why?

### Tips for answering

Tip 1: Prepare the basic concepts of DBMS very well. Practice the queries as well.

Tip 2: Try to answer with the help of some example (if possible)

Tip 3: Discuss what you're thinking with the interviewer, even if you're not sure about your answer.

### Problem 5

### Problem Description

Questions related to OS were asked. Real life situations were asked based on the OS concepts. The next question depended upon the keywords that I used in my previous answer.

Some questions: What are the current processes running on your system? What is a process (the interviewer mentioned not to give a bookish definition)? Are Zoom and Chrome running together at the same time? How can they run on a uniprocessor v/s a multiprocessor? What is context switching? How to know which process to execute next? What all can be considered as threads in the current running Zoom app?

### Tips for answering

Tip 1: Prepare the basic concepts of OS very well.

Tip 2: Discuss what you're thinking with the interviewer, even if you're not sure about your answer.

## Fourth Round Details

### Round Type

Video Call - interview

### Platform

Zoom

## Duration Of Round (in minutes)

30-40 minutes

## Difficulty Of Round

Medium/Slightly Hard

## Description Of Round

We waited in the assigned waiting room and when the interviewer was available, we entered a breakout room where one to one interview was taken.

## Why do you think you passed this round?

I constantly tried to answer the questions and didn't give up. I discussed whatever I was thinking with the interviewer, even when I wasn't sure about my answer.

## Problems data

## Problem 1

## Problem Description

Tell me about yourself. Discussion about my mentioned co-curricular activities, certifications and hobbies was done.

## Problem 2

## Problem Description

System design questions were asked. What would be the measurements of system performance (metrics of the system) if I had to design OLA? The same was asked for Netflix.

## Tips for answering

Tip 1: Do not give up on the question even if you can't come up with its exact solution.

Tip 2: Discuss what you're thinking with the interviewer, even if you're not sure about your answer.

Tip 3: Try not to be extremely vague and try to include the related technical terms.

## Problem 3

## Problem Description

In C++, can we implement exception handling in constructors and destructors, and why?

## Tips for answering

Tip 1: Give some logical reasoning for your answer.

## Problem 4

## Problem Description

What technologies do you know and what are you planning to learn in the future? Which technologies are you interested to learn apart from the mentioned?

## Problem 5

## Problem Description

What is virtual memory? Explain with some examples, not just the definition.

## Tips for answering

Tip 1: Be clear with the OS concepts.