

Naveen Rohilla (M.Sc.) - (17-18) August 2021 - EYX

Round 1 : Online Assessment

sections: 3

Time : 120 minutes

Section 1 : General Aptitude (40 questions) (Hard) (Negative Marking)

Section 2: Technical Aptitude (20 questions) (Easy - Medium)

Section 3: Coding Questions (4 questions)

1. <https://www.geeksforgeeks.org/subset-sum-problem-dp-25/>
 2. <https://www.geeksforgeeks.org/find-next-smaller-next-greater-array/>
 3. <https://www.interviewbit.com/problems/first-non-repeating-character-in-a-string/>
 4. <https://leetcode.com/problems/k-th-symbol-in-grammar/>
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Round 2 : Technical Round 1

Time : 60 minutes

There were 2 people who were there interviewing me.

It started with an introduction and my review on the OA.

They asked which section of OA was the most Successful attempt by me. I replied with coding.

I coded in C++.

So they asked me to explain the solution to the 1st question of the coding round.

After that they asked me to explain & dry run 2nd question of coding round.

After that they asked me if I am aware about OOPs concepts and I replied yes.

So they asked me to explain the following with examples:

1. Encapsulation
2. Inheritance
3. Polymorphism
 - a. Compile Time Polymorphism
 - b. Runtime Polymorphism

Next they asked me to choose an IDE of my choice and print the following pattern in the minimum number of Runs.



Hollow Diamond

I printed it but it took many runs.
And then the interviewer ended the interview.

Round 3 : Technical Round 2

Time : 50 minutes

Interviewer first gave his introduction and asked me to do the same.

Then he gave me a link to [collab edit](#).

1. LRU cache (design the data structure and dry run on test cases)
<https://leetcode.com/problems/lru-cache/>
2. Given that integers are being read from a data stream. Find the median of all the elements read so far starting from the first integer till the last integer. This is also called the Median of Running Integers. The data stream can be any source of data, for example, a file, an array of integers, input stream etc. Also tell the time complexity of the solution.
<https://leetcode.com/problems/find-median-from-data-stream/>
3. Given a right triangle of numbers, find the largest of the sum of numbers that appear on the paths starting from the top towards the base, so that on each path the next number is located directly below or below-and-one-place-to-the-right.
Input :

1
1 2
4 1 2
2 3 1 1

Output : 9

Explanation : $1 + 1 + 4 + 3$

<https://www.interviewbit.com/problems/maximum-path-in-triangle/>

4. Given an array of integers nums containing $n + 1$ integers where each integer is in the range $[1, n]$ inclusive.

There is only one repeated number in nums, return this repeated number.

You must solve the problem without modifying the array nums and use only constant extra space.

<https://www.interviewbit.com/problems/find-duplicate-in-array/>

And then he asked the same problem with the following variation :

All the integers in nums appear only once except for precisely one integer which appears two or more times.

Then he started asking Puzzles and asked me to tell him if I have seen/done this puzzle earlier.

5. <https://www.geeksforgeeks.org/puzzle-9-find-the-fastest-3-horses/>
6. <https://www.geeksforgeeks.org/puzzle-41-guess-color-of-hat/>
7. <https://www.geeksforgeeks.org/puzzle-12-maximize-probability-of-white-ball/>
8. <https://www.geeksforgeeks.org/puzzle-will-sheep-safe/>

Note: Don't lie.

Then the interviewer asked me if I had anything to ask from him .

I asked a few questions.

Also I asked for feedback.

Round 4 : Technical Round 3

Time : 75 minutes

Interviewer first gave his introduction and asked me to do the same.

While he was accessing my OA test he asked me to explain any one of my projects.

Then he started asking the questions from General aptitude which I attempted in OA.

He was having a full record i.e. how much time did i spend on each question.

1. The minute hand and hour hand coincides how many times in 24 hrs.

Sol: Minute hand and hour hand coincide every 65 minutes.

So ... $(24 * 60) / 65 = 22$.

2. $(x-1)(x-3)(x-5) \dots (x-93) < 0$

For the above expression to be true what is the number of values that x can take.

He gave me 8 options.

It took me some time but I was able to solve it.

Ans = 23

3. Puzzle

He asked me to tell him if I have seen/done this puzzle earlier.

There are 3 boxes labelled with red, blue and Mix.

One box contains only red balls , another only blue balls and another mix (red + blue).

But they are wrongly labelled.

What is the minimum number of balls that you need to take out of the box and identify correct labels.

Again it took me a lot of time, i was stuck at a point but didn't give up.

Interviewer asked me if I needed a hint and I replied with let me try for a minute and then we will see.

After some time the interviewer gave me a hint and I was able to reach to answer.

Ans = 1.

Note: Don't give up, keep trying until the end. If stuck at a place, try to rethink from the start.

4. He asked me if I worked on databases, which databases I used in my projects and why I chose them.

In what languages did I do my projects?

5. There is a stream of integers and every second I read a number from the stream and need to display the number received till now in sorted order. Which data structure will you use and its time complexity.
6. Reverse a linked list without using any extra pointer using recursion.(Tricky)
<https://www.geeksforgeeks.org/reverse-a-linked-list/>

Then the interviewer asked me if I had anything to ask from him .
I asked a few questions.

Round 5 : HR Round

Time : 40 minutes

Interviewer first introduced herself and asked me to do the same.

She asked normal casual questions, my academic life, hobbies, skills, etc.
Basically she asked questions to know my personality.

Points to remember:

1. Prepare well. Anything can be asked in an interview.
2. Prepare - DSA , OS, DBMS, Computer Networks.
3. Do prepare for General Aptitude and you should definitely know how to find the speed of the train.
4. Only write those things in your resume that you're aware of and are confident enough to answer any question related to it.
5. Don't lie.
6. Luck matters too in the placement process.