

Ciena Interview Experience (C/C++ Profile)

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It was a three-round process with one online assessment and two technical rounds.

ROUND 1 - Online Assessment (60 mins)

There were 2 different assessments set up according to the profile for which the students had applied (One for the C/C++ profile and the other for the Java profile).

- Java Profile assessment consisted of 2 programming questions.
- C/C++ Profile assessment had various sets of assessments, different for each candidate.

I got 3 coding questions related to strings in C/C++(level of difficulty:easy to moderate).

Q1. Given a string containing only uppercase characters, return how many times you can remove letters (in any order) from the string and make the string “BANANA” from it.

Example:

Input: NAABXXAN Output: 1

Input: NAANAAXNABABXNNBZ Output: 2

Input: AAXAYZB Output: 0

Q2. Given a string S return alphabetically smallest string that can be obtained by removing exactly one letter from S.

Example:

Input : S="hot" Output: "ho"(because it is alphabetically smaller than "ht" and "ot").

Q3. Given string S count the number of different letters that appear in both uppercase and lowercase where all lowercase occurrences of the given letter appear before any uppercase occurrences.

Example:

Input: S="aaAbcCABbC" Output:2 (a and b are lowercase letters coming before uppercase)

Input: S="xyzXYZabcABC" Output:6

Input: S="ABCab" Output:0

Some students got a single section with 45-50 MCQ questions around Aptitude and Reasoning, C error correction, and C Output questions (Output questions were tricky, whereas aptitude and fundamentals were relatively easy).

43 students were selected for the next round.

ROUND 2 - Technical Interview 1 [40 min]

Interview started with the basic greeting and he didn't introduce himself and asked for my introduction and then took my CV.

Then he asked about the ciena, how was the ppt they showed us and the benefits and after 4-5 mins , he asked a DSA question on reversing the linked list in group of k and asked to write the code .

I give the recursion approach on which we discussed for about 10-15 min. He has to make sure that this approach works on all test cases.

For this I dry run the code on 2-3 examples .

Then he asked some basic questions

1. Runtime polymorphism
2. Some examples on runtime polymorphism and why we require it ?
3. When we declare a pointer to a class that has some integer and an object of another class as a member then how the memory is allocated to the variables ?
4. Difference between the static , auto and extern ?
5. Why do we use static keyword and give an example ?

Then he asked me about the projects that i have done

I explained the e-commerce project I have done in a team , and explained its modules.

And at last he asked about my programming journey and then he wound up the interview.

ROUND 3 - Technical Interview 2 [40 mins]

The interviewer asked me to introduce myself. After the introduction, he asked me to explain my latest project. This will take 10 min

Then he gave me a few coding questions to be solved in the given time complexities:

Q1. Find the missing number in the array in $O(n)$.

First I gave a solution of time complexity of $O(n^2)$.then a map solution and then sum of first n numbers solution.

Q2. Remove the middle node in the linkedlist.

As these are standard question and i know the solution , but i don't give the solution write away and asked some question that should i use space he said no , after that i asked that linked list is empty or not and linked list can have even no of nodes or not he said no , then i gave the solution with slow and fast pointer.

In this question I used a third pointer to delete the linked list node. He noticed that and then he asked another question to delete the node without using the third pointer.

Q3. Delete a node of linked list for which ptr to that node is given and head of the linked list is not given in .

Q4. Find Cycle in the linked list.

For every question I was supposed to write the code .