Accolite Digital (On-Campus) Interview Experience

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The complete placement process for this company was virtual.

The Interview Process consists of following rounds:

- 1. Online Assessment + Coding Test (30 mins + 60 mins)
- 2. Technical Interview Round 1
- 3. Technical Interview Round 2
- 4. Technical Interview Round 3
- 5. HR Round

1. Online Assessment + Coding Test

- 30 MCQs: MCQs were related to C output question, finding error and also related to OOPs concepts. There were aptitude questions as well. The level of questions was Basic to medium.
- Coding Test: 1 coding question was asked for which I had 60 mins.
 Problem 919D Codeforces

Given a directed graph with N nodes and M edges. Each node is associated with lowercase english alphabet. Beauty of a path is defined as the number of most frequently occurring alphabet. Find the most beautiful path and return the maximum beauty value it has.

NOTE: - Total 90 mins were given and this time was not divided sectionally. If you complete the MCQs in 20 mins then the remaining 10 mins you can use to solve the coding problem.

9 students were selected for the next round.

2. <u>Technical Interview Round 1</u>

I was asked to introduce myself and then she started with the coding questions directly. She gave a link to a google doc which consist of the coding questions.

She asked me to share the screen and open any editor. I asked if I can open VS code, she agreed.

The following coding questions were asked:

- <u>LeetCode Longest Common Subsequence</u>: First She asked me the Brute Force
 Approach and then asked me to optimise it. I was stuck for a while in this question so it
 took me some time to solve this question. She asked me the TC and SC also of the Code.
 When I was done with my code, she asked me to run it on several test cases given by
 her. When she got satisfied with the solution, she asked me to copy the code in the
 google doc.
- <u>LeetCode Rotate Array By K</u>: She explained me this question and then asked me to write the code in the google doc itself. She just wanted to see the approach. So, First I

told her the brute force approach and then she asked me the TC and also to optimize it. I then gave her the solution which included k=k%n. She did not further ask to optimise it.

- Then, she switched on to the CS Fundamentals. She asked me
 - Paging in (OS)
 - Normalization (DBMS)
 - Threads (OS)
 - Routers (Networking)
 - Foreign Key (DBMS)
 - Inheritance and a real-life example (OOPs)

In this interview, there were two questions which I could not answer Paging and Normalization. I knew about them but not exactly. That's why I simply said no because if I would have given some vague answer with whatever was coming to my mind then she might have asked further questions about the same like defining types of normalization and all. So, at that moment I preferred to avoid such situation.

She then told me to ask any questions if I have. I asked her about the difference between the interview process of a fresher and an experienced person. How much does it change? And also, about her experience in the company.

7 students were selected for the next round.

3. Technical Interview Round 2

This interview started with 15 mins discussion on my project.

PLEASE BE COMPLETELY HONEST WITH YOUR PROJECT AND SKILLS.

It was a group project. She asked me the tech stack that I used in this project and what was my part. Our App was in a working process then so I mentioned this to her. I mentioned MySQL and mongoDB in my skills. She asked me the difference between them, I gave the answer then she asked me to give some more differences and also if I knew mongoDB in depth, I denied to this as we had not done that database part completely because of which I did not know much about it.

Then, she started with the coding part. It was focussed on Linked List.

- Define the class of Node and separate class for Linked List.
- Code to insert new node at the end of the linked list: I asked her some questions like do we the tail or just head only. She told me to consider only head. Also asked her that whether I will be given directly the node to insert or just a value for which I would have to make a node and then insert it. She told me to consider that I have only value.
- Remove Duplicates from Unsorted Linked List: I asked her if I have to remove all the occurrences of that duplicate node. She told me that I have to keep the first occurrence as it is and remove any further duplicate node. I had the whole solution in my mind but I just wanted to be sure so I started to write its pseudo code on my paper. She then asked me to just discuss the approaches that are coming to my mind with her. She did not ask me to code this question. I just told her the approach and she was convinced.
- Traversal of Linked List: First, I thought there will be some more thing to do in this question. But she said no you just have to traverse the complete LL. I told her we can do this by simply using while loop. Then she asked me to traverse it without using any loop.

I started thinking but could not recall then she gave me a hint by asking "Do you know Recursion". Then, I quickly said that yes, I can do it with recursion. She then asked me to tell the code just verbally.

- Then comes the CS Fundamental part:
 - Polymorphism and its types
 - o STL: I told everything about STL. Set, unordered set, map and so on.
 - Difference b/w map and unordered_map: In this along with the main difference
 I also told her their internal implementation.
 - Virtual Functions in C++
 - IPv4 Addresses
 - Topologies

If you are asked to define a topic, then tell the interviewer everything related to that because your in-depth knowledge will impress the interviewer. (Do this only if you completely sure and ready to face some follow-up questions as well). In this interview, she asked me to write the code only for the structure of LL and insertion at end, that too she did not ask me to run it. She was focusing on the approach that I was telling her. If she was convinced completely with that she did not focus on code.

She told me to ask any question I have. I asked about the work life and culture of the company.

3 students were selected for the next round.

4. Technical Interview Round 3

This interview started with some basic questions:

- Why C++: I replied that I have been doing coding in C++ since my class 11th. So, that's why kept it as a major language. He also asked me what if I had to write the code in JAVA. I told him that I sure will be able to do so as I have learnt JAVA also in my UG. I would need a revision for the syntax and all rest logic is almost same.
- Difference between C++ and JAVA: JAVA is more object oriented. Java is platform independent. JAVA has both interpreter as well as compiler.
- Command to run a C++ file in CMD: gcc filename.cpp then ./a.out
- He asked me if I had used some other operating system than Windows. I told him that I haven't used any other OS properly, just worked a little bit on UBUNTU.
- If I compile a cpp file on windows and now I want to copy its executable file on UBUNTU, then what will be the command in UBUNTU to do so.
 - It was trick question; C++ is not platform independent because of which a file complied in windows will not be able to run on other OS. I got a little stuck in this question in the beginning but then he gave me a hint so then I was able to answer the question.

Then comes the Coding Questions based on Trees

First, he asked me to define what is Tree? What is Binary Tree? Then he asked me to share the screen and then he gave me a tree structure.



The question was <u>Sum Root to Leaf Numbers - LeetCode</u>

He explained me the question very clearly. I was sure that I will be able to do this. I asked for 2 minutes to form a pseudocode and then will discuss the solution with him. I did so. Then discussed with him. He said OK now you can write the code.

I typed the code firstly with the brute force approach. He told me that there is one thing missing in my code. I knew that the base case for root == NULL was missing I added it.

Then he asked me to tell such input cases in which the code will not work if I did not write that base condition of root == NULL.

I told him that if I passed root as NULL then the code will not work. He asked me to write the input case which was **node* root = NULL**;

He agreed on that and asked me to give one more test case. I thought little bit and then came up with the answer which was If any node has only one child either right or left then in that case the code will also not work.

He said yeah that's right.

He asked me to write a SQL query for a case:

I had a table of students in which student id is the primary key.

I had a table of marks in which I have the marks of every student subject-wise. The marks table also have student id as a column but no student name column.

I have to write a query which will print all the marks of every student with student name. This could be achieved with a simple join query. So, I answered that and then he asked me what is marks.student_id == student.student_id means so I told him that this is for the reference of the foreign key.

Then he asked me if I had any questions. I asked him his experience. He had 20+ years of industry experience.

2 students were selected for the next round.

5. HR Round

This round started with the introduction in which I told about myself, my education, my family background and at last about my languages and projects.

She did not understand my second project so I explained that again in detail to her.

She then asked me my strengths and weaknesses and my goal in life.

After that she discussed the CTC breakup with me. The interview lasted for about 30 minutes.

Both the students who gave HR were offered the job.

IMPORTANT POINT TO REMEMBER

- Be sure before you start telling your solution. And even if you are stuck somewhere you can ask for hint. The interviewer will help you a little bit.
- Presentation is most important. In my all the three interviews I presented the approach, explanation and code in a very systematic manner. Everyone can write code but important is how easily you make the other person tell your approach. That was the reason in some questions I was not asked to write the code.
- Keep discussing with the interviewer. Whatever you are writing or thinking discuss it with the interview. Keep it interactive.
- Be Honest with your project.