Cvent Interview Experience
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Round 1: CS Fundamentals and Aptitude

It was an Online Assessment(OA) round with Multiple Choice Questions from **C++, Java, DBMS, OOP, SQL Queries, Aptitude**.

Number of Questions: 30
Time: 60 minutes
Platform: Wheebox (AI proctored: Camera and Mic was on)

Round 2: Online Coding

No. of Questions: 1
Time: 40 minutes
Platform: iMocha (AI proctored: Camera and Mic was on)

Question:

There are 2n students lined up into two rows of the same size (there are exactly n people in each row). Students are numbered from 1 to n in each row in order from left to right.

You need to choose a team to play basketball. You can only chose players from left to right, and the index of each chosen player (excluding the first one taken) will be strictly greater than the index of the previously chosen player. To avoid giving preference to one of the rows, you must choose students in such a way that no consecutive chosen students belong to the same row. The first student can be chosen among all 2n students (there are no additional constraints), and a team can consist of any number of students.

Given 2 arrays of heights of students of both the rows, choose students in such a way, that the total height of all chosen students is maximum possible. Return the maximum height possible.

Sample Input:

```
1, 4, 5
3, 7, 9
```

Output: 16

Explanation: 3 from row2, 4 from row1, 9 from row2 = (3 + 4 + 9) = 16

Round 3: Technical Interview 1 (In-person Interview)

First, I was asked to **briefly introduce** myself. I told about my studies and the projects I had done.

I had done a project in NextJS so he asked me **about NextJS**. **Features and advantages** of NextJS over other similar tech stacks. I mentioned that I was only a beginner so he didn't ask anything further about that.

He then asked me my favorite language and the reason why than was my favourite language. Then we moved to the questions.

Question 1:

Given a 3x3 matrix, there's a rat in the (0,0) cell and cheese in (2,2) cell. Give total number of paths possible for rat to reach the cheese given:

i. There were no restrictions on rat's movement.

ii. Rat can only move in 2 directions: right and down

iii. What would be the answer if the matrix was of size 4x4 instead.

iv. A generalized formula for NxN matrix and for any random cell. (In terms of Permutations and Combinations - this was my hint)

Question 2: (Puzzle)

https://www.geeksforgeeks.org/puzzle-9-find-the-fastest-3-horses/

Question 3: (SQL Query)

Given a student data, find the 2nd highest marks.

Some other Questions:

i. A few questions about my other projects

ii. My project used an API so some questions around APIs and which kind of API was I using.

iii. Why is C++ faster than Python

Then he asked me if I had any questions for him.

Tip: This is the best chance to improve your impression on the interviewer even further. So ask wise questions.

Round 4: Technical Interview 2 (In-person Interview)

First I was asked to introduce myself. Small discussion of one of my projects and what my part was in that project.

We then moved to questions.

Question 1:

Given a string consisting of some space-seperated words, reverse the order of the words.

Sample Input:

"Cvent is best!"

Output: "best! is Cvent"

Ignore the extra blank spaces, if any.

I suggested an approach using string tokenizer. He then asked me to do it without tokenizer so I discussed another approach. He then asked me write down the code for it.

Question 2: (Puzzle)

https://www.geeksforgeeks.org/puzzle-18-torch-and-bridge/?ref=lbp

Question 3: (Puzzle)

https://www.geeksforgeeks.org/puzzle-1-how-to-measure-45-minutes-using-two-identical-wires/?ref=lbp

Question 4: (Puzzle)

https://www.geeksforgeeks.org/puzzle-21-3-ants-and-triangle/

Question 5: (C++)

What is the difference between sets and maps (unordered_set/ set and unordered_map/ map)

Question 6: (OOP)

How is Polymorphism achieved in C++.

Question 7: (follow up of Question 6)

How are virtual functions used in Polymorphism.

Question 8: (follow up of Question 7)

What are Abstract classes and Interfaces and what is the difference between the two.

Question 9:

Write a code to implement the functionality of "undo" operation.

He then asked me if I had any questions. I asked a few and then we concluded.