

CVENT INTERVIEW EXPERIENCE

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Round 1: Online Test (1 hour)

- 30 MCQ Questions
- Topics: Aptitude, C, C++, Java, SQL and OOPS.
- 45 students were selected for next round.

Round 2: Online Coding Test (1 hour)

- Platform: Codility
- The platform was better than other platforms. It was similar to VS Code. Syntax Error Checking and Auto-completion was working.
- There was only 1 problem to solve.

- **Problem:**

A retail store chain wants to expand into a new neighborhood. To maximize the number of clients, the new branch should be at a distance of no more than K from all the houses in the neighborhood. A is a matrix of size $N \times M$, representing the neighborhood as a rectangular grid, in which each cell is either an integer 0 (an empty plot) or 1 (a house). The distance between two cells is calculated as the minimum number of cell border (regardless of whether the cells on the way are empty or occupied) that one has to cross to move from the source to the target cell (without moving through corners). A store can be only built on an empty plot. How many suitable locations are there?

For example,

given $K = 2$

matrix $A =$ $\begin{bmatrix} 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 1 & 0 & 0 & 1 \end{bmatrix}$,

houses are located in cells with coordinates $(2, 3)$, $(3, 1)$ and $(3, 4)$. We can build a new store on two empty plots that are close enough to all the houses. The first possible empty plot is located at $(3, 2)$. The distance to the first house at $(2, 3)$ is 2, the distance to the second house at $(3, 1)$ is 1, and the third house at $(3, 4)$ is at a distance of 2. The second possible empty is located at $(3, 3)$. The distance to the first, second and third houses are respectively, 1, 2 and 1.

Write a function:

```
public int solution(int K, int[][] A) {}
```

Which given a positive integer K and matrix A of size $N \times M$, returns the number of plots that are close enough to all the houses.

- 16 students were selected for next round.

Round 3: Technical Interview 1 (1 hour)

The interview started with brief introductions.

Then he asked me if I am comfortable with Graph, Tree and Dynamic Programming. I answered yes.

Then he asked me 1 graph problem.

<https://www.geeksforgeeks.org/given-matrix-o-x-replace-o-x-surrounded-x/>

We discussed only this problem for an hour.

I solved the problem using dfs.

He asked some questions related to graphs.

10 students were selected for round 4.

Round 4: Technical Interview 1 (1 hour)

The interview started with brief introductions.

Problem: The problem was similar to

<https://www.geeksforgeeks.org/remove-forbidden-strings/>

The problem was discussed for half an hour and different approaches were discussed.

He asked me about hashing too and how HashSet works in Java, how collisions are handled?

I gave him code for all the approaches.

At the end he asked me for Class (OOPS) based solution to the problem.

I updated the same code and he was satisfied with the solution.

Puzzle 1:

<https://www.geeksforgeeks.org/puzzle-18-torch-and-bridge/>

Puzzle 2:

<https://www.geeksforgeeks.org/puzzle-1-how-to-measure-45-minutes-using-two-identical-wires/>

After puzzles project was discussed.

7 students were selected for next round.

Round 5: CCAT and Personality Test

CCAT (Aptitude) (22 minutes)

- 50 MCQ Questions
- It covered basic verbal, math and logic, and spatial reasoning.
- No negative marking. Try to attempt all questions.

Personality Test

- 50 MCQ Questions
- No time limit

7 students were selected for Intern + FTE.