

Cvent Interview Experience

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Round 1 - Aptitude

The first round was a computer fundamentals and aptitude round. It mostly had questions about C++, Java, DBMS, OOPs, SQL Queries and some aptitude questions. There was no shortage of time for the amount of questions.

Number of Questions: 30

Time: 60 Minutes

Difficulty: Easy-Medium

Round 2 - Online Coding

This round consisted of a single coding question on the codility platform.

Time: 60 Minutes

Difficulty: Medium

Problem Statement:

Given a rectangular grid containing houses built in some cells, find the number of empty cells at a distance of at most K to every house. 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 borders (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 $K = 2$ and matrix $A = \begin{bmatrix} 0 & 0 & 0 \\ 0 & 0 & 1 \\ 1 & 0 & 0 \end{bmatrix}$, 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 plot is located at (3, 3). The distances to the first, second and third houses are respectively, 1, 2 and 1. $A[1] = 0000$, $A[2] = 0010$, $A[3] = 1001$. Cells at a distance of less than or equal to 2 from all houses are marked in yellow. Write a function: `def solution(K,`

A) which, given a positive integer K and matrix A of size N x M, returns the number of empty plots that are close enough to all the houses.

Examples: Given K = 2 and A = [[0, 0, 0, 0], [0, 0, 1, 0], [1, 0, 0, 1]], the function should return 2, as explained above. Given K = 1 and A = [[0, 1], [0, 0]], the function should return 2. We can build a store on empty plots at (1, 1) and (2, 2). A[1] = 01, A[2] = 00. Cells at a distance of less than or equal to 1 from all houses are marked in yellow. Given K = 4 and A = [[0, 0, 0, 1], [0, 1, 0, 0], [0, 0, 1, 0], [1, 0, 0, 0], [0, 0, 0, 0]], the function should return 8. Stores can be built on the following plots: (1, 1), (1, 2), (2, 1), (2, 3), (3, 2), (3, 4), (4, 3) and (4, 4). A[1] = 0001, A[2] = 0100, A[3] = 0010, A[4] = 1000, A[5] = 0000. Cells at distances of less than or equal to 4 from all houses are marked in yellow. Write an efficient algorithm for the following assumptions:

- K is an integer within the range [1..800]
- N and M are integers within the range [2..400]
- Each element of matrix A is an integer within the range [0..1]
- There is at least one house

Round 3 - Face To Face Technical Interview 1

This round was conducted on a Zoom call with a single interviewer and the coding was done on codility with the screen shared.

Time: 60 Minutes

Platform: Zoom + Codility

The interview started with a brief introduction, then we head right into the questions

Question 1:

<https://www.geeksforgeeks.org/print-all-pairs-with-given-sum/>

Question 2:

<https://www.geeksforgeeks.org/length-of-the-longest-substring-without-repeating-characters/>

Round 4 - Face To Face Technical Interview 2

This round was conducted on a Zoom call with a single interviewer and the coding was done on codility with the screen shared.

Time: 60 Minutes

Platform: Zoom + Codility

The interview started with a brief introduction, then we head right into the questions

Question 1 (Puzzle): <https://www.geeksforgeeks.org/maximum-bishops-that-can-be-placed-on-nn-chessboard/>

In my case, the size was not $n * n$. It was a regular 8×8 chessboard

Question 2 (Coding):

<https://www.geeksforgeeks.org/minimum-number-platforms-required-railwaybus-station/>

Question 3 (Coding, Follow-up to Question 3):

Suppose, out of these M minimum platforms, N are closed due to construction work. Find out the number of trains that will be impacted by the reduced number of platforms.

Round 5 - CCAT (Criteria Cognitive Aptitude Test)

This test was divided in two parts:-

Aptitude Test(22 Minutes, 50 MCQs)

- It covered basic verbal, math and logic, and spatial reasoning.
- No negative marking. Try to attempt as many questions as possible.

Personality Test(No Time Limit, 140 MCQs)