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DAY 1:

Online Assessment:

Divided in two parts MCQ (carrying 2,4,6 marks) + 1 coding question(50 marks) on HackerEarth

MCQ related to : OS,DBMS (choose correct queries+ related theory),Data Structures mcq ,C/Java coding mcq(related to output,theory,complexity) ,OOPs mcq and

1 coding Question :

BEST HOUSES

Alice and Bob are best friends.they are planning to buy one house for each of them.

The available houses for sale are located on land which is divided into $N \times N$ plots. The houses are numbered 1 to N from top to bottom and 1 to N from left to right.

The coordinates of each house can be presented as (i,j) which denotes the i th house from the top and j th house from the left.

Of Course, each house is not equally good you are also given $N \times N$ matrix G and $G[i][j]$ denotes the goodness value of the house at (i,j) .

Alice and Bob both wants good houses but they also don't want to be too far from each other.

Lets define a happiness function:

$$H((a,b),(c,d)) = G[a][b] + G[c][d] - |a-c| - |b-d|$$

Now Bob and Alice wonder, what is the ,maximum value of the function H that they can get if they consider every pair of coordinates (a,b) and (c,d) such that $(a,b) \neq (c,d)$

Input N=3

1 2 3

2 4 6

5 9 3

Output:

Ans 13

Explanation:

$(a,b)=(3,2)$

$(c,d)=(3,1)$

$G[a][b]=9$

$G[c][d]=5$

Applying happiness function:

$$9+5-|3-3|-|2-1|$$

$$14-0-1$$

$$13$$

Technical round 1:(DAY-2)

Taken By :one of senior engineer of the company

Questions:

Begins with your introduction.

Explain your projects?

What is Polymorphism?

Code for it.

He gave a situation that:

He has a class furniture and class chair and table will inherit it .What will you do if i want chair and table to compulsorily override a function say Price() of furniture class.else i should get compile time error:+Code for it.

Ans c++ make class function virtual

Java make class function abstract

What is Operating System?

He then asked sql queries to write:

There are two table Student (rollno,name,address,class sec)and Topper(roll no) table.

Joins theory

Write queries to print name of toppers....and few other related queries.

Difference between array and linked list?

Which is better for searching and why?

Only discuss approach for : given a string return count of each letter in it

He then asked me a puzzle.(Not from internet sources)

It will end with interviewer asking you :”Do you have any questions for me?”

Tech +CEO round 2:(DAY-3)

Taken by :CEO of the company

Questions:

Introduction

Which is your favourite subject ?

Write code for Client Server Program and compile it.

What is thrashing?

What is Inter Process Communication?Ways to achieve it?

What are layers of OSI model?Explain

What is MAC address?

What is IP Address ?

Can both MAC and IP be Unique?Why or Why not?

Which layers deal with mac and which with IP address ?

Who provides IP address to u?

Difference between TCP and UDP protocol? Which one Microsoft teams use?

Sliding window Protocol?

Where do you live? How many members in family?

What does your parents do?What do you know about Truminds?

How is life at college campus going?

