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Microsoft Interview Experience | (SDE-2 for 3 Years Experienced)

- Difficulty Level : \n[Medium](#)
- Last Updated : \n02 Mar, 2018

I had got a call through Naukri Portal . I got interview invite for a weekend drive.

Round 1

Hacker rank test :

Q1 : Given relationship of child-parent for a tree for all nodes. Find the diameter of that tree.

Q2 : <https://www.geeksforgeeks.org/maximum-difference-between-two-elements/>

3 more MCQs in test.

Round: 2

Q1: Given a n-ary tree. Find the longest path (top to down) with consecutive integers in increasing order

Q2: Design a RangeSet class where you can Add, Delete and search in a optimized way

E.g. add 10-20

Delete 13-27

Add \xe2\x80\x93 23-28

Search (3)- output false

Search (22) \xe2\x80\x93 output false

Search (24) \xe2\x80\x93 output true

Round: 3

Q1: <https://www.geeksforgeeks.org/search-an-element-in-a-sorted-and-pivoted-array/>

Q2: Given a tree find the next right element towards any given element in input (Level order traversal)

Q3: Count all possible distinct sums (top-down) in a binary tree.

Round 4:

Q1: <https://www.geeksforgeeks.org/nuts-bolts-problem-lock-key-problem/>

Q2: <https://www.geeksforgeeks.org/dynamic-programming-set-27-max-sum-rectangle-in-a-2d-matrix/>

Q3: Given 2 trees, check whether Tree A contains Tree B. (Contains mean all nodes and orientation of their children should match)

Round 5:

Q1: Given a string like below, it has words embedded for zero to nine, You need to calculate the sum as per the string

onehhhtwominusthreehhkkseveneightjnine

should be equivalent to

1+2-3+78+9

output: 87

twothreekkkminuspponeksevenoeightllninenine

should be equivalent to

23-1+7+8+99

Output : 136

onetwothreefour

output: 1234

Q2: Design a tiny URL service like bit.ly

Q3: one puzzle :

Given 1 Box with 2 latches

A and B stay in different states.

A has 2 keys of latch 1

B has 2 keys of latch 2

Now user A has to send a message in a box to User B.

while sending the message A has to make sure that no one on the way reads the message. If A sends the Key along, anyone can open it and check .

How would you make sure that this threat to read the message in between, is removed.

It was a good experience, although i got reject after a few days

My Personal Notes\ *narrow_drop_up*

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