# Microsoft Interview Experience (On campus internship)

Difficulty Level :\nMedium

Last Updated :\n31 Aug, 2018

It was conducted on Cocubes. It consisted of 3 questions:

2 marks: Average of ascii characters of string.

Input:abc

Output:(65+66+67)/3=66

3 marks: Reverse k nodes at a time in a linked list.

5 marks: Cousin sum in a binary tree.

Other questions were:

- 1.Infix evaluation
- 2. Given an array of numbers, find the smallest number after n deletions
- 3. Next palindrome.

Of 200 students about 60 were selected for next pen and paper round. We had one ds question detect and remove loop from a linked list and 6 short questions based on C.

At the end of each round I was asked the question \xe2\x80\x9cDo you have any question for me? \xe2\x80\x9d.

## Round 1(F2F):

First I had to explain my approach, then write the entire code and test cases for each problem.

1. Reverse a sentence.

Input:\xe2\x80\x9dThis is a test\xe2\x80\x9d

Output:\xe2\x80\x9dtest a is This\xe2\x80\x9d

2. Reverse the sentence preserving whitespaces.

Input:\xe2\x80\x9dThis is\xc2\xa0 \xc2\xa0a\xc2\xa0 \xc2\xa0 test\xe2\x80\x9d

Output:\xe2\x80\x9dtest a\xc2\xa0 \xc2\xa0 is\xc2\xa0 \xc2\xa0 This\xe2\x80\x9d

3. Identify whether given nodes of a binary tree are directly connected or not.

Input Output

2 true

5.4 false

5,4,9 true

## Round 2(F2F):

- 1. There are two types of characters one of 1 byte and another of 2 bytes, I had to delete the last character.
- 2.Design a remote just like\xc2\xa0 keypad of old phones, and display all corresponding channels on TV screen.

Input:22227723

Output:

a

b

С

a

ар

aq

aqa

aqd

### Round 3:

First I was asked \xe2\x80\x9cTell me about yourself.\xe2\x80\x9d

then \xe2\x80\x9cWhat I wanted to do in life?\xe2\x80\x9d and 2 coding questions, just logic no implementation.

- 1. Popultate right pointer in a binary tree.
- 2. Given a file print all the anagrams together.

Finally, I was selected. It was one of the best moments of my life.

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