

Microsoft Interview | Set 20 (On-campus for Internship)

- Difficulty Level : [Medium](#)
- Last Updated : 11 Jun, 2020

Hello everyone, I recently got selected for the internship at Microsoft IDC. GeeksForGeeks helped me a lot in preparing for the coding tests as well as for interviews. The positions that they were interviewing for were SDE and SDET(Testing).

1st Round. Online 30 mins

The first round was an online round which was hosted on cocubes.com. There were 20 MCQ questions. Questions were from a variety of topics like Algorithms, Data structures, C, C++, OOPs, Memory Management, Computer Architecture, etc.

2nd Round. Online 1 hour

This was a coding round in which two problems were given.

- Problem 1:** [Given a word and a text, return the count of the occurrences of anagrams of the word in the text.](#)
For eg. word is "for" and the text is "forxxorfxdofr", anagrams of "for" will be "for", "xor", "ofd", etc. So the answer would be 3 for this particular example
- Problem 2:** [Given a binary tree with parent pointers, find the right sibling of a given node](#)(pointer to the node will be given), if it doesn't exist return null. Do it in $O(1)$ space and $O(n)$ time.

3rd Round Group Test Code on paper 45 mins

First, we had to discuss the solution with the assigned mentor and then we had to code it on paper(no pseudo code)

- Problem 1:** Given a BST, one of the nodes violates the BST property(left-child < parent < right child), return the pointer to that node.
- Problem 2:** Two no.s having equal no. of digits were given in the form of singly linklist. (For eg.- 102 will be given as 1 -> 0 -> 2). Add these no.s and return the answer in the form of a singly linklist. Do it in $O(n)$ time, given n digit numbers
[GeeksforGeeks Link](#)

4th Round Interview

- I had to implement a T9 dictionary . insertWord function and populateWords were the two functions which I had to implement on paper(again no pseudo code).

First I have to discuss the approach with the interviewer and then he asked me to code.

5th Round Interview

- He dicussed the work that I did in my last summer internship and after that he asked me to code the [maximum subarray problem](#) in one pass.

I and my friends who got internships at Adobe Research, Amazon, De-Shaw, Samsung would like to thanks GeeksForGeeks for maintaining a high-quality problem set for coding tests and interviews.

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[All Practice Problems for Microsoft !](#)

My Personal Notes\ *narrow_drop_up*

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