

Microsoft Interview Experience 2019 | Off-Campus Internship For IDC

- Difficulty Level : \n[Hard](#)
- Last Updated : \n04 Apr, 2019

I applied for Microsoft Off Campus Internship through mettl.com. Minimum CGPA was 7 and no backlogs were allowed.

Coding Round(ONLINE)

It was an online coding test which had three questions and 90 mins were allotted for it. Different people got different sets of questions.

- 1) <https://www.geeksforgeeks.org/find-total-number-of-distinct-years-from-a-string/>
- 2) <https://www.geeksforgeeks.org/rearrange-odd-and-even-values-in-alternate-fashion-in-ascending-order/>
- 3) <https://stackoverflow.com/questions/52775518/number-of-buses-originating-from-a-bus-stop-a-computer-program>

I solved all the 3 problems. The result was announced after 20 days and I was qualified. After some days I got my interview details.

Round 0(FLY ROUND): \xc2\xa0

This was a pen-paper based round and in this round almost 160 students participated from different institutes of India. 2 questions were asked and they gave us 60 minutes to solve. The problems were :-

- 1) <https://www.geeksforgeeks.org/a-linked-list-with-next-and-arbit-pointer/>
- 2) <https://www.geeksforgeeks.org/reverse-alternate-levels-binary-tree/>

Only 20 students were selected for the next round. I was one among them.

Note:- If you have enough time left then write comments and explain your approach . Also variable names should be self explanatory for better understanding.

Round 1(Technical): \xc2\xa0

It was a f2f interview and the interviewer was very nice and friendly. \xc2\xa0 First he brought my fly round paper and asked how can I improve my solutions. Then he asked me these problems:-

<https://www.geeksforgeeks.org/expression-evaluation/>

<https://www.geeksforgeeks.org/program-print-substrings-given-string/>

As a modification to the second problem he asked me how will I find the longest repeated sub-string within the same string in which the characters can overlap.

After that he asked me:- Given two tables A and B (in SQL) how can I print only those rows which are present in A and not in B without using multiple select statement (Note that due to this restriction

we cannot use the MINUS operator). I gave him a solution which uses JOIN function in SQL but it was incomplete. After his help I was able to solve it completely. Then he asked me a question in Computer Networks and i told him that I am not good in this topic and he moved on . He then asked me whether I have any questions for him. I asked 2-3 questions and then the interview came to an end.

I was waiting outside when I was informed about the whereabouts of my 2nd interview.

Round 2(Technical):

The interviewer first asked me about my college which was followed by 1-2 minute of general talks. After that he gave me a question and asked me to write the code.The question was:-

Given n locations/directories of a file print the directory in the order such that the parent directory comes before the child directory. For example a directory is \xe2\x80\x9ca/\xe2\x80\x9d and the second directory is \xe2\x80\x9ca/b/c/\xe2\x80\x9d so \xe2\x80\x9ca/\xe2\x80\x9d is the parent directory of \xe2\x80\x9ca/b/c/\xe2\x80\x9d because to reach \xe2\x80\x9ca/b/c/\xe2\x80\x9d we first need to reach \xe2\x80\x9ca/\xe2\x80\x9d.

Example:-

Input :- 1) a/

2) a/b/c

3) d/

4) d/e

Output :-

The input is already given in the sorted format and can be printed as it is. One more solution can be :-

1) a/

2) d/

3) a/b/c

4)d/e

I told him 3-4 approaches each time with a complexity less than the previous one. But he wanted a better solution. I finally arrived at a solution that we can just sort the strings according to their lengths and he was satisfied. He then told me to write radix sort for the same.

Although I was not confident in implementing radix sort but I tried and after taking some time I finally wrote the code. I explained my approach to him and then he told me to wait outside.

I was very nervous after this interview as I was not sure about my implementation of radix sort. But after some time I was called for the next round.

Round 3(HR) :

First he asked me to introduce myself and how were my previous interviews.The interviewer was polite. He asked me what i generally do to pass my time. Then he asked me my favorite topic in programming. I told him data structure. He asked what in data structure. I told him trees and graphs.

He then asked me how will I explain to someone what is a tree who knows nothing about coding. Following that he asked me some applications of graphs. I told him maps, but he wanted another solution. He asked me how do you think Facebook works. I told him the connections between the friends is a generalization of graph data structure. Then more questions about implementation of mutual friends in Facebook followed. The interview came to an end and he asked me whether i have any questions for him. I asked him a few questions.

After some time the HR came and asked for my resume and told me that they will get in touch with me within a few days to tell me whether I was selected or not.

After almost 30 days I got a mail from them stating that I was selected. Hurrah!!!!

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