

Microsoft Interview Experience \xe2\x80\x93 Full Time Employee \xe2\x80\x93 2018

- Difficulty Level : \nMedium
- Last Updated : \n18 Dec, 2018

Interview experience from Birla Institute of Technology, Mesra

Round 1: Online Coding Round

This round was on CoCubes platform and consisted of 3 questions (2, 3 and 5 marks).

- [Given a string, calculate the ASCII average of the characters](#) (as float). [2 Marks]
- Given a number as a string, [find the next greatest palindrome](#) (return as String). [3 Marks]

This is a popular SPOJ question.

- Rearrange a given linked list according to the order. [5 Marks]

<https://practice.geeksforgeeks.org/problems/reorder-list/1>

Other Questions that were asked :

- <https://www.geeksforgeeks.org/remove-bst-keys-outside-the-given-range/>
- <https://www.geeksforgeeks.org/print-cousins-of-a-given-node-in-binary-tree/>
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101 students were shortlisted from 250+ applicants.

Round 2: Group-Fly Round

This was an interesting round. We were asked to design an Air Traffic Controller System. We had to write our ideas, data structures and algorithms on a paper. There were some additional constraints

1. 4 AM \xe2\x80\x93 6 AM is the busiest time of the day
2. Air Traffic doubles on weekends and triples on holidays
3. The Airport caters International, Domestic, Commercial and Private flights.
4. Weather, medical emergency, etc are also to be taken care of

Apart from this, we had to create 5 tests for our system. We had to design and execute the test-cases. 45 minutes were given in total.

I used a multi-threading model and used important scheduling concepts like Semaphores.

29 students were selected for PI.

Round 3: Personal Interview

3 rounds of interview total.

In the **first round**, I was given 2 coding questions.

1. [Reverse an Integer only using Mathematical Operations.](#)
2. [Given N natural numbers, 1 is missing, find the number.](#) Then, the interviewer expanded the

problem to find 2 or more missing numbers.

I had to write the code and run a few test cases as well.

The **second round** was again technical,

The interviewer asked me to implement a dictionary. I used Tries and HashMap. He later asked me to handle the cases of Auto-Correction and Text-Prediction (like modern search engines). I wrote the code as well and he asked me to explain it (Tries + DFS + String Handling). Then, we discussed about Search Engines and how user experience can be improved.

Then, he asked me about OOPS. What is Run time and Compile time polymorphism? Explain and give examples.

The **third** and the final round was with a senior manager,

He asked me everything about my projects and we had a discussion in detail. He liked the originality of my projects and was impressed by my work. Then, he asked me about my Google Summer of Code project and my contributions to open-source and we had a very healthy discussion.

About 5 minutes later, the HR called me and said that I was selected. It was one of the best moments of my life.

My Personal Notes

Add your personal notes here

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