

## Microsoft Interview Experience

**Job Profile:** Not sure, developer or something.

**Salary Offered:** 7.5 base + performance and joining bonus (Around 10.3 LPA)

**Location offered:** Hyderabad

### Aptitude Test:

**Round 1:** It consisted of 20 questions primarily on C (What will be the output/error types). 3-4 of these questions were on basic logic, data structure, operating system etc. 30 minutes were given, which everyone found adequate. The test was not very difficult since I was thorough with books such as 'Let Us C' and 'Test Your C Skills'. Those who cleared it made it to the second round of the aptitude test.

**Round 2:** Two codes were to be written, compulsorily in C. Both the questions were directly taken from the book Cracking The Coding Interview (This book is very important for placements).

Question 1: A sorted array is given, but it is rotated an unknown number of times. Find an element in this array. Time complexity should be  $\log(n)$ .

Array example: 15, 17, 19, 50, 1, 2, 6, 8. I did not know how to do it. I tried a modified binary search but it did not work for all cases. So I just used a normal for-loop (Linear Search) :p

Question 2: Find the in-order successor of a node in a binary tree.

After the aptitude test, some people had another round, where they had to write 1 or 2 codes. One was to print a basic pattern and other was to design something using OO principles. I had direct interviews.

### Interview Round 1: (Technical)

1. Tell me about yourself (This was the first question in every interview I ever gave. So prepare a good answer for it).
2. Print first 200 Fibonacci numbers in reverse order. (I did it but it was not efficient).
3. Check whether a string is palindrome or not.
4. What is normalization? Explain 2NF, 3NF, BCNF. (I didn't know BCNF).
5. What is TCP IP (I could not answer).
6. What is a stack/queue?

I was rejected after this round. But the interviewer was very difficult to impress and rejected all the candidates that day. So students like me who had their first interview with him, and had a good placement track record were considered again. Remember, **this is a very rare thing that happened that day. So do not rely on it and do not ask/hope for it.** I had not asked for it either. It just happened. After around 4 hours, I was called in for my second interview.

### Interview Round 2: (Technical)

1. There were 2 tables, Employee and Department. Employee had an attribute MGR (which contained values from another attribute (EmpNo) in the same table). DeptNo was a foreign key in Employee and primary key in Department. I was told to write a query to a) calculate number of employees that have at least 1 employee under them. b) Department (Print name using Dname in Department) with highest salary.

These queries seem easy, but somehow during an interview I never got them right in the first attempt.

So practice such queries properly.

2. What are indexes, clustered and non-clustered indexes? (I honestly said I do not know).

3. What are the problems in Mumbai and design technological solutions for them.

You get a good chance to show your creativity in open-ended questions like these. We discussed the above question for almost 20-25 minutes.

4. Design the database that you used in your project.

I don't remember other questions of this round. I was immediately sent in for the next interview.

### **Interview Round 3: (HR + Technical)**

1. What went wrong in the first round? (I was honest and told him my solutions were not efficient).

2. Why is your aggregate so low in comparison to your peers? (It was around 72%).

3. Why don't you join your father's business? How do you use your technical skills to help him in his business?

4. Why don't you pursue a career in teaching? (Since I had mentioned teaching in my resume).

5. Why Microsoft? (I just smiled wide and said it has been a childhood dream and etc.)

6. What was your role in the projects? Which technology did you use and Why?

7. Why have you not participated in any coding-competition? (I did not have a specific answer to this).

8. Why have you not done an internship? (Me-'I wanted to focus on placements', not a good answer).

9. Design a game of chess. (I had no clue what to do). I tried things out and kept doing what came to my mind. They just want to see how you approach such questions.

Next day when I was awaiting the results, they suddenly called me in for another interview.

### **Interview Round 4: (Technical)**

1. Design an Online Book Reading System using OO principles. We discussed this question for around 30 minutes. Clarify any doubts you have and ask for essential requirements of the system.

2. You have an unsorted linked list. Remove duplicates.

I tried a few inefficient approaches. Eventually he asked me to use Hash Tables and all. I said I had never used them and he was a little annoyed.

**Shortlisting:** 80+% (around 44) of the people cleared the first aptitude round. 21 from them cleared the second aptitude round and were eligible for interviews. 6 of us stayed till the last round and there were 4 successful offers.

A few **lessons I learnt** from the interview rejections I had:

1. Think data-structures. Think about them once when you have been given a problem to solve.

2. Feel positive. Do everything before the interview to feel that you deserve the job.

3. Sometimes it is just not your mistake. Learn lessons from unsuccessful attempts and forget it.

4. You might have all the technical skills. But you need interview skills as well.

5. Do a considerable amount of research on the company a day before the interview at least. When you are given an opportunity, always ask a sensible question related to the company at the end of every interview.

All the very best 😊