Interview Experience, Deutsche Bank

There were 5 rounds

Round 1: Online Round on HackerRank

10 MCQ on various topics related to computer science.
2 Coding Questions:
Question 1: You are given a random keypad & you need to calculate the time it takes to enter a code. Assume that it takes 0 sec to reach the first key, 0 sec to press a key, and 1 sec to reach to an adjacent key, diagonals are also adjacent.
Question 2: https://www.hackerrank.com/challenges/new-year-chaos/problem
Similar to the problem "Count Inversion".

Round 2: Jenga Game

8 of us were divided into two groups and were told to create a model of a fitness center. We were given a time limit to do so.

After a few minutes, they told us that due to lack of funds we cannot build our fitness centers separately anymore. So we need to build a single fitness center together, also we cannot remove anything that has already been built. And now it's compulsory for us to have rooms for Zumba and yoga.

Once we were done, they asked to explain them our model, and a few other questions like, was it easier or harder after we were told that we had to work together. All of us agreed that it was definitely easier as we had more block to work with.

I was asked if you have to take out 10 blocks from the model what building would you remove, to which I replied that I will remove both restrooms at the ends and create a new one in the middle.

Very Basic Questions were asked in technical rounds

Round 3: 1st Technical

After the intro and some random questions, the interviewer asked me whether I had any problem with relocation. I said no.

Then he asked me the Josephus problem https://youtu.be/uCsD3ZGzMgE

He told me to solve this for 100 people. I was trying to solve it manually, so he told me to solve this for 10 people instead. After I was done he told me to write a recursive program for this problem where the total number of people in the circle is n. I did it by representing people as a Boolean array and solving for it recursively.

Next, he asked me to write a program to check if two binary trees are equal or not.

Then he asked me a to write a program to swap two numbers without using a third variable.

Finally, he asked me to write an SQL query to display the name of all the employees having the 2nd highest salary.

Round 4: 2nd Technical

There were two interviewers in this round.

They asked me to create a binary search tree on paper with given values.

Then they asked me to write a function to see if a value exists in that tree or not.

Then they asked me how will I change the binary search tree If I had to make the last node of that binary search tree (the one I just made) the root node.

After that, they asked me to create an AVL tree from the values.

Then they asked me what was the first question to ask if someone told you to write a Fibonacci series. I replied, “The two starting values”.

Then they asked to write a function to print Fibonacci series until the values are less than n and assume 0 and 1 as starting points. They asked me to write both recursive and iterative functions.

Lastly, they asked me to write an SQL query to list the name of employees having the third highest salary in each department. I wasn’t able to write this query.

Round 5: H-R round

There were two interviewers in this round as well.

They asked me to how will you convert [1, 2, 3] [A, B, C] to [(1,A), (2,B), (3,C)] in python. I said using lambda function, they asked me to think of something more efficient, they were expecting zip function, but I wasn’t able to answer. They told me that lambda function is fine but has overhead so it’s better if you use zip for large queries.

Then they said that they have been told that I am not very good at DBMS and asked whether I like it. To this, I replied that I don’t hate it but I haven’t done much SQL recently. To which they commented, “So you haven't had much exposure, that’s fine”.

Then they asked me what is more important to you, your integrity or your loyalty. I asked him to define integrity. This lead to a discussion. Finally, I answered integrity. They said that is exactly what he was expecting.

Then they asked me to imagine that I am working in a team on something very important and there is a very dominant person in that team who is pushing for their idea and everyone agrees with them, I had a better idea but no one was listening to me, what will I do?

To this, I replied that the efficiency of the method is less important than the integrity of the team, it’s better to follow a less efficient path together than to split the group.

So they changed the question that what we are working on must come through and the plan we are following is bound to fail and you are the only one who understands this. I replied that if I know that this plan is bound to fail then I also know that why this plan is bound to fail, and what are the most likely turn of events that will follow, So I will tell this in exact detail to my teammates, and they will understand.

To which they replied you are being optimistic and questioned whether this would actually work in real life. After a bit of discussion they gave me four options to choose from:

1. Talk to everyone individually.

2. Call another group meet.

3. Abandon project

4. Lodge a complaint with the manager.

So I replied that I will use a combination of 1 & 2, I will contact them individually but instead of telling them what is wrong I will ask some doubts about the idea and let them come to the conclusion that the project is doomed. Once most people understand that this is not going to work I will call a group meet next day, now because most of them came to the conclusion on their own, so they won’t be manipulated this time.

Then they started asking some random H-R questions, and they asked me if I have any questions for them. Finally, they told me to wait outside.