Company Name: D. E. Shaw

Student Name: Anamika Sadh

Contact Number: 7224963855

Batch: 2021-25

Selection Type: Direct placement

Online test pattern: 4 rounds [OA, 2 Technical Interviews, HR round]

Interview Rounds:

Round 1 (Technical):

1. There were 2 interviewers on my panel. Firstly, they introduced themselves and asked me to introduce myself.
   [I took 2 minutes for my introduction, and they liked the way I introduced myself.]
2. Then I was given a DSA problem [Medium]. I don't remember it exactly, but it was similar to:

Given a 2D matrix where each cell represents the number of fruits at that position. A person can start from any row in the first column and can move in the following three directions only:

- Right (→)
- Right-Up (↗️)
- Right-Down (↘️)

Determine the maximum number of fruits that can be collected by starting from any cell in the first column and moving to the last column using only the allowed moves at each step.

[I first explained the brute force approach, followed by the greedy approach, and clarified why the greedy approach would not work. Then, I described the recursive approach, followed by the memoization technique. After that, I explained the tabulation method and also implemented it. When he asked if the solution could be optimized further, I discussed space optimization as well. For each approach, I clearly explained the time and space complexity. He also gave me various examples and edge cases, which I addressed and ensured my code handled correctly.]

My main language is Java, so he asked me a few questions related to Java:

3. Is Java a platform-dependent or platform-independent language, and why?
4. What are static keywords in Java and what are they used for? Also, give an example. How do you define them? *[I had to write a short code snippet for this]*

5. What is a Red-Black Tree?
   [They also asked cross-questions from my response like: what is a self-balancing tree, what is a BST, and is a BST not self-balancing, etc.]
   Properties of Red-Black Tree.
6. What is an AVL Tree? Is it self-balancing? What is the difference between a Red-Black Tree and an AVL Tree?
7. Give real-life examples of how Red-Black Trees and AVL Trees are used.
   [I could not give proper examples but gave a few small ones... However, they were asking in-depth.]
8. They asked me a few Linux commands to write. For example, a command to search a file up to 3 levels.
   [I just knew this one. Apart from that, they asked me to write commands for 2 more queries, but I haven't explored Linux in such depth, so I just told them sorry, I don't have much idea about this.]

9. What is a view in DBMS? Also, give an example. *[Had to write a query]*
10. What is NoSQL and what are its features?
11. What is data integrity? How do SQL and NoSQL handle it, and what is the difference?
    [They asked many cross-questions on this, and the discussion was in-depth.]
12. Explain keys in DBMS.
13. What are constraints in DBMS?
14. What is normalization? Also, explain normal forms with examples.
15. Lastly, they asked if I had any questions for them.

I was able to answer most of the questions, except for the two Linux command ones. Also, I couldn't give a proper real-world example for one or two questions. But overall, the interview went well and the interviewers seemed quite impressed.

Round 2 (Technical):

1. Normal Introduction
   [I also told them that I am currently interning at Amazon, so they asked me: Why not Amazon? Why D. E. Shaw? What do you know about D. E. Shaw—what it does and what are its core values?]
2. Puzzle
   [The puzzle was similar to this one, but they modified it a little bit:]
   🔗 https://www.geeksforgeeks.org/puzzle-13-100-prisoners-with-redblack-hats/
3. DSA Question [Hard]
   [The question was similar to this DP problem, but slightly modified:]
   🔗 https://leetcode.com/problems/minimum-number-of-taps-to-open-to-water-a-garden/description/
   [Like in Round 1, I gave them all possible approaches that came to my mind.]
4. What is UDP and TCP?
   What is the difference between them, and where are they used in the real world?

5. What is a deadlock?
   When does it occur and how can we resolve it?
6. What tech stacks are you working on? What is your role at Amazon?
   [There was some discussion around my work at Amazon.]
7. A few more CS fundamental questions related to OOPs and Operating Systems.
8. Lastly, they asked if I had any questions for them.

Round 3 (HR):

[It was a short 15-minute round. They asked the following:]

1. Why do you want to join D. E. Shaw?
2. What do you know about D. E. Shaw and its core values?
3. If given a choice, what would you choose between Amazon and D. E. Shaw, and why?
4. Why do you think you are a good fit for our organization?
5. As you are currently an SDE intern, why do you want to join an SDET role?
6. What do you know about the SDET role?
7. And a few more basic behavioral questions.

Result: Selected

Tips (dos and don'ts):

1. **Introduce yourself well** – Highlight your skills, achievements, hobbies, and current work. Show enthusiasm.
2. **Be honest** – Don't talk about things you're unsure of. It's okay to say, *"I don't know."*
3. **Stay confident** – Think before you answer. Stay calm and enter with a positive mindset.
4. **Think out loud in DSA rounds** – Interviewers are not just looking for the final solution—they want to understand your thought process. Explain how you're approaching the problem step by step, even if you haven't reached the optimal solution yet.
5. **Answer clearly** – If you know something, explain it properly. Don't leave answers incomplete.

Any particular advice: Prepare everything all DSA topics, CS fundamentals, puzzles. There might be questions you're not prepared or ready for. Don't stress-stay calm, think logically, and smile. Confidence matters more than perfection.

Hope it helps! All the best — believe in yourself, you can do it! ✨😊