Soliton Placement Drive Experience - Divakar G

Preliminary Rounds - College Level

The first round consisted of a written test with 25 questions in the GATE exam pattern, including:

- **Concepts covered:**

    o Physics (Velocity, Mass, Collision)

    o Electrical Circuits

    o C Programming (Snippet Output)

    o Data Structures & Algorithms (DSA)

    o Core Fundamentals (Computer Networks, Operating Systems, Database Management Systems)

Following the written test, an **online coding round** was conducted on the Examly portal. This round included 4 coding questions. Only those who successfully solved all 4 problems were shortlisted for the **Main Soliton Placement Drive**.

From my department, **6 students, including me, were shortlisted**, and across the entire RMK Group, a total of **306 students** moved on to the next round.

Main Rounds in Soliton Placement Drive

Round 1: Written Test (1 hour 15 minutes)

- Given a question paper with instructions and two A4 sheets for calculations.

- The **first page** of the paper had a section for personal details and a list of related formulas.

- The **test format:** 15 fill-in-the-blank type questions.

- Solutions had to be written in the A4 sheets, and the final answer was recorded on the front page of the question paper.

- **Important:** Writing the **approach** clearly was necessary.

Concepts Covered:

- 2 C Snippet Output Questions

- 1 DSA Question (AVL Tree)

- 2 Mathematics Problems

- 1 OS Question

- 1 CN Question (TCP Concept)

- The remaining questions focused on **Electrical Circuits** and **Physics.**

Result: Out of **306 candidates, only 27 were shortlisted**, and I was one of them.

Round 2: Short Coding Round

- **Language Restriction:** C

- **Format:** 3 programming questions, each with **6 test cases**.

- **Questions:**

    1. **Find Subarrays That Sum to a Target and Check "Good" or "Bad"**

    2. **Find Unique Elements and Perform Normalization**

    3. **Encrypt and Decrypt a String Based on ASCII Value Formula**

After one hour, the results were announced. **22 candidates** advanced to the next round, including me.

Round 3: Technical & HR Interview

Technical Interview:

- Started with "Tell me about yourself."

- **Project Discussion:**

    o Solution provided, my role, logic used.

- **Hackathon Experience:**

    o What product was developed?

    o Team size?

    o Algorithm used? (Had to solve it on paper)

- **Database Management:**

    o What is **Normalization**?

    o What is **BCNF**?

- **Operating Systems:**

    o What is **Semaphore**?

    o Why is it used?

- **My Question:**

    o Asked about **AI automation** in Soliton and whether they use specific models or adapt their models over time.

HR Interview:

- Personal background, including **family, schooling, and interests.**

- Resume-based questions.

- General conversation.

Result: Out of **22 candidates, 13 were shortlisted, including me.**

Round 4: Long Programming Round

- **Duration:** 5:30 PM - 9:30 PM

- **Format:**

    o   Solve the approach on paper first and discuss it before coding.

- **Questions:**

1. **Zigzag Matrix** (Came up with two approaches, discussed, and implemented. Passed 4/5 test cases.)

2. **Second Problem** (Discussion but could not complete due to lack of frequent communication.)

Mistake: Not being outspoken and not interacting frequently.

Result: 7 students moved to the next round, but I was not shortlisted.

Round 5: Design Round

- My friends shared that they were given a **problem statement** to design a solution.

- Required to develop a **low-level abstraction** with **implementation details.**

- **Problem:** Design a solution to effectively transmit a high-quality image of variable size.

- **5 students got shortlisted.**

Round 6: Essay Round

Candidates had to write essays on the following topics:

1. **Tell me about yourself.**

2. **Where do you see yourself in 5 years, personally and professionally?**

3. **What will you contribute to Soliton? What do you expect from Soliton?**

After this round, **5 students were placed at Soliton.**

Final Thoughts

Although I was not placed at Soliton, the entire experience was invaluable. The structured rounds gave me deep insights into technical problem-solving, coding efficiency, and interview handling