Goldman Sachs

Round 1(Computer Based Test – Time: 135 mins): Difficulty: Medium

The test consisted of 4 sections (20 ques). Every section has a time constraint:

- Coding (3 questions – 2 moderate and 1 advanced) – 30mins for 2 moderate questions and 45 mins for 1 advanced question)

- Quantitative Aptitude (trigonometry, PnC, Co-Ordinate geometry, aptitude (JEE level))- 20 mins

- Computer Programming MCQ's (OS, CO, DBMS)- 20 mins

- HR Questions (2) – 15 mins

Round 2(Technical Interview 1)

It started with my introduction and then jumped onto hackerrank codepair where I was given a coding question, first I had to explain the approach and then I had to code.

Question : Given an array of integers with duplicate elements:

Example : {1, 2, 3, 2, 1, 3, 2, 1}

I have to find the minimum distance between the maximum and minimum element. Here, the minimum distance between 1 and 3 is 1.

Firstly, I told the hashmap approach by storing the index of every maximum and minimum element, then he asked me it's time complexity which in the worst case can get upto $O(n^2)$.

Then he asked me to optimize it. Then I explained him the optimized approach and also coded it and he said yeah this will work but there are some errors in this. Then he gave me hints and I kept improving it.

Question 2 : He said suppose you have elements having size upto 10^7 and the range of numbers is only 0-100 then what can be the best sorting algorithm you can use to sort it. I was not sure about this so I just started guessing. Then he said what if you have only two numbers 0 and 1 how can you sort it. So, he gave a hint of storing the frequencies in hashmap and then I explained the approach and he asked me the time complexity as well.

Then he asked me any if I have any questions. I asked one.

Round 1 ended.

Round 2 (Technical Interview 2)

This round also started with my introduction. Then she asked me about my projects and I explained her and she was happy with it (always start explaining your project with the motivation behind those projects). Then she told me to join hackerrank codepair. She asked me 3 questions:

1. Reverse a sentence. (I was not allowed to use any STL Library) – stack approach
2. Median in a data stream (Leetcode 295)
3. LRU Cache (She asked me the approach of this only and didn't told me to code it. I told her the doubly linked list and hashmap approach. Then she gave me an example and asked me

what will be the structure of your doubly linked list and hashmap). Then she asked me it's time complexity.

She asked me any if I have any questions. I asked one.

Round 2 ended.

Suggestions: Be confident. No need to worry at all, Interviewers will help you and give hints at each and every step whenever you'll get stuck.