

# PAYAL SAHA (M.Sc - 2020 - 2022)

## Amazon interview experience ( 6M internship )

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### Online Assessment - (2.5 hours)

1. Debugging questions - (20 mins)
2. Coding - (70 mins)
  - <https://practice.geeksforgeeks.org/problems/count-number-of-substrings4528/1>
  - <https://leetcode.com/discuss/interview-question/699973/Goldman-Sachs-or-O-A-or-Turnstile>
3. Work Style Assessment - (20 mins)
4. Logical Reasoning - (35 mins)

### Technical Round 1 -

The interviewer introduced himself and then asked me to introduce myself. Then he gave me 2 questions to solve :

1. Given an array of strings that representing marks of students in a class.  
Determine the second highest marks scored.  
E.g - ["201", "100", "99", "1001", "999"]  
Ans - "999"

The interviewer wanted neat and optimised code. The question was simple enough if you know the string operations properly. After some discussion I was able to code it. **Always ask the corner cases before you start to code. Explain your approach before you start coding and always communicate whatever is going on in your mind while thinking of the approach ( He might want something else, then he'll guide you if you are thinking something else. ). NEVER complicate a simple problem ( Starting with naive solution helps, though it's ok to not to linger too much on naive approach).**

2. <https://www.geeksforgeeks.org/in-place-convert-a-given-binary-tree-to-doubly-linked-list/>

After some discussion and few hints I was able to code recursive solution for it.

**NEVER change your approach once you have started coding.**

He asked me time and space complexity of both the solutions and asked me if I had some questions for him. I asked something related to his work that drew my attention while he was introducing himself.

## Technical Round 2 -

The interviewer introduced himself and then asked me to introduce myself. Then he asked me some questions regarding my projects - Which one is the best project of yours? Were there any mentor for you while preparing those projects? What are the new things that you have learned while working ? What were the challenges that you faced and how did you overcome these challenges ? **Prepare answers of these questions well in advance , they definitely mark you based on these.**

He then asked me to write time complexities (best, average ) and worst space complexities of various sorting algorithms and operations on heap. **Explain while writing.**

Then he asked me 2 questions :

1. <https://www.geeksforgeeks.org/median-of-two-sorted-arrays/>

I coded  $O(n)$  solution, though there exists  $O(\log n)$  solution to the problem.

2. <https://www.geeksforgeeks.org/connect-n-ropes-minimum-cost/>

The problem was same but question was phrased differently. I described the approach and gave optimal solution for it. He asked to write time and space complexity.

In the end he asked me if I had some questions, I asked some questions I was curious about.

Some tips :

1. Think interview as a discussion instead of an exam. Communication is the key.
2. Be honest.
3. Practice well.
4. Be confident.

**All the best :)**