

Amazon Interview Experience | Set 360 (On-Campus)

- Difficulty Level : \n[Expert](#)
- Last Updated : \n10 Jul, 2019

Round 1: (Online Test)

Time: 1hr 30 mins on HackerEarth Platform

20 MCQ (Gen Apti, OS, TOC, Networks and DS)

Coding:

1. Maximum non adjacent subsequence
[GeeksforGeeks Link](#)
2. Profit sort (Find no. of elements in the given range)

Round 2: (Problem Solving Round)

1. [Vertical Sum of Binary Tree.](#)
Discussion about various data structures that can be used. Finally came up with hash map.
2. [Width of Binary Tree](#)
3. [How map is internally stored in C++?](#)
4. If N students in a class play a game against each other where each student plays against all other students in the class, find the total number of matches to be conducted.
Also, if the class leader has to arrange the students in a line where each student would have lost the match with the student in front of him (Remember: student may or may not have won the match with the student front of front of him). Design a suitable data structure for maintaining such an order.

Round 3: (Data Structures and Algorithms Round)

1. Project Discussion
2. There are various libraries that a Kindle app may use. All these libraries must be linked appropriately to be included in Kindle. There will be dependencies between the libraries. Apply a suitable data structure such that a library cannot be added before its dependencies. I discussed a topological sort approach. Finally wrote code and tested the same.
3. Discussion about second coding question asked in the online test. I was asked to bring up a better solution, given, that I can use extra space. I proposed an approach based on hashing and counting sort.
4. Threads vs Process. They were impressed because I explained with a real-time example
5. How the Program is stored in memory? Stack frame for Program?
6. When two threads access a code at the same time, what happens. How is it prevented?
7. [Difference between mutex and semaphore.](#)
8. Priority Inheritance and Priority Inversion.

Round 4: (CS Fundamentals)

1. Tell me about yourself
2. Design a music player application
I was asked to first list out all possible features to be added within 2mins time. I came up with around 30 features. The interviewer selected a few of those features and asked to draw a class diagram for the same.
3. I have a DB of some size as of now. In future new DB with additional space will be added. How

will the DB be modified? What to modify? How to scale it?

4. Distributed computing concepts
5. [Multiple partitions in OS](#)
6. [MVC design pattern](#)
7. My costliest mistake in life
8. Asked something interesting about myself that others don't have.
9. Whether I like back-end or front end. Reason out.

Round 5: (Bar Raiser Round)

1. Project Discussion
2. There are k stars in the space and an origin star, find the nearest 100 stars from the origin star.
I came up with brute force approach first.
Later devised a max heap solution and coded the same
3. Virtual Machine
4. About AWS, S3
5. Design Patterns. Asked to implement Singleton Design Pattern in Java
6. Scheduling Algorithms. Which scheduling algorithm does modern operating systems use?
7. Strength and weakness
8. Latest technical knowledge that I gained. Recent technical article that I read.
9. Maximum amount of code that I had ever written in college.
10. Any Questions from my side?

I was one among the three to be selected from my college for Full Time SDE at Amazon

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[All Practice Problems for Amazon !](#)

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