

Amazon Interview | Set 27

- Difficulty Level : [Hard](#)
- Last Updated : 14 Jun, 2019

Hi, I was recently interviewed for SDE1 position for Amazon and got selected. I have 1.5 year experience in java. Geeksforgeeks helped me lot. I am very thankful to Geeksforgeeks team. Following were interview questions-

Two telephonic rounds followed by 5 F2F interviews.

Round 1 (Telephonic):

1. There is a dictionary already implemented. Write a method, which takes input String without space, to prints all subsets of the input string which is present in dictionary.

Example: Dictionary `a*`

Input- `aaabaa`

Output- `a,a,a,aa,aa,aaa,a,a,aa`

2. There is a dictionary already implemented. Write a method , which takes input String without space, to replace the characters from the strings which are not present in dictionary with `*`

Example: Dictionary `a*`

Input- `aaabaa`

Output- `aaa_aa`

Interviewer was cool. Did not code properly (lots of bugs were in code), but gave good approach for first question. For second question solution sent in a mail.

Round 2 (Telephonic):

1. [Write a program to remove duplicates from array of prime numbers.](#)
2. [Write a program to return nearest elements from a binary search tree for input element.](#)

This round was very good. Interviewer was very happy with my approach for both questions. Code did not have big bug.

Round 1 (F2F- Problem Solving and coding):

1. Tell me about yourself.
 2. [Write a program to find top 10 elements on an array of integers.](#)
- Don't remember much. Questions were easy. This round was very good. Interviewer was happy with solution.
3. Write a program to calculate a^b and store it in floating point representation.

Round 2 (F2F- Computer Fundamental):

1. Tell me about experience in past job.
2. OOPS concepts- Polymorphism, Inheritance, Encapsulation, Abstraction.
3. Aggregation and Composition.
4. Design patterns which you have implemented.
5. Write code to implement Singleton design pattern.
6. Design a system to implement options in Pack of cards.

7. Difference between Windows and Unix.
8. Threads, Synchronization, Deadlock.
9. Other subjects which you studied in your academics.
10. Most challenging work you ever faced.
11. Discussed about current project, role.

This round was fair enough. I was not able to discuss questions on subjects which I studied in academics.

Round 3 (F2F- Data Structures and Algorithms):

1. Tell me about yourself.
2. There is a 2d array. Write code to find the path with maximum sum. You can only traverse $i+1$ or $j+1$. if i is row number and j is column number.

I solved it using dynamic programming

3. In a binary tree find the least common ancestor for two nodes. (Write code)
4. Similar to 3rd question. Write a program to find least common ancestor in binary search tree.

This round was very good. Finished it only 40 mins.

Round 4 (F2F- Managerial round):

1. Tell me about yourself.
 2. Copy Linked list with orbit pointer.
 3. Write a code to find top hundred elements in a data set which cannot be loaded in RAM.
 4. Typical parenthesis checking problem.
 5. Most challenging work you ever faced.
 6. What will do if you get task which is ambiguous.
 7. At what extend you will be frustrated if you always get ambiguous problems.
 8. How many members in your team in current organization. What's your role?
- Questions on current project.

Interviewer was very cool and friendly.

Round 5 (F2F- Bar raiser round):

1. Tell me about yourself.
2. Discussed about current project.
3. [Write a program to find number of inversions in an array.](#)

Example- Array 2, 5, 3, 1, 10

Inversions (2,1), (5,1), (3,1), (5,3)

Answer will be 4

Gave solution of complexity $O(n \log n)$. Interviewer gave me hint for that.

Hint- Divide and conquer approach.

He asked me to write code which doesn't have any bug.

This article is compiled by **Neha Gupta**. Many Many congratulations to Neha. If you like GeeksforGeeks and would like to contribute, you can also write an article and mail your article to contribute@geeksforgeeks.org. See your article appearing on the GeeksforGeeks main page and help other Geeks.

[All Practice Problems for Amazon !](#)

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