# Amazon Interview Experience | Set 259 (1 Yr Experienced for SDE1)

Difficulty Level :\nMedium
Last Updated :\n04 Jul, 2019

**Round 1:** It was a written round with three question.

Q1) Find a peak element.

Q2) Top View of binary tree.

Q3) Maximum difference between node and its ancestor in Binary Tree.

## Round 2 (F2F):

Q1) Given an array of distinct integers, find if there are two pairs (a, b) and (c, d) such that a+b = c+d, and a, b, c and d are distinct elements. If there are multiple answers, then print any of them.

Expected complexity: \xc2\xa0O(n<sup>2</sup>

```
Ex: 3,4,7,1,2,9,8\r\nOutput: (3,8) and (4,7)
```

Q2) Lowest Common Ancestor in a Binary Tree

In both the questions, they needed a proper working code covering every edge cases.

# Round 3 (F2F):

- Q1) If I am designing a media player and I want to store songs and play them in random order
- a) What data structure will you use to store songs?
- b) How will you select the next song to play in a way which prevents the same song being played in consecutive turn.

I spend some time and finally came up with the working solution.

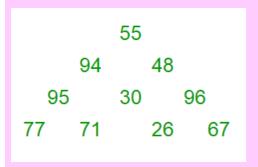
Q2) Clone a binary tree with random pointers.

(Hint: Use HashMap)

xc2xa0

## Round 4 (Telephonic):

- Q1) Tell me about yourself. Your current company, your role and responsibilities. Reason for leaving current company.
- Q2) Maximum triangle path Sum: Starting from the top of a pyramid of numbers like below, you can walk down going one step on the right or on the left, until you reach the bottom row:



One of such walks is 55 -> 94 >- 30 -> 26. You can compute the total of the numbers you have seen in such walk, in this case it\xe2\x80\x99s 205.

Your problem is to find the maximum total among all possible paths from the top to the bottom row of the triangle. In the little example above it\xe2\x80\x99s 321.

- Q3) Design your own Process Control Block(PCB).
- Q4) Give me an example of a project that didn\xe2\x80\x99t work out well?
- Q5) What are some of the things that you and your supervisor have disagreed about?

## Round 5 (Telephonic):

- Q1) Tell me about yourself. Your current company, your role and responsibilities.
- Q2) Asked about the challenges faced in your current company. Did you ever have a boss that you did not like or get along with?
- Q3) <u>Check for balanced parentheses in an expression.</u> <u>https://www.geeksforgeeks.org/check-forbalanced-parentheses-in-an-expression/</u>

I was asked to write code as well on collabedit site.

Q4) Move all zeroes to end of array.

 $xc2\xa0$ 

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All Practice Problems for Amazon!

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