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## Amazon Interview | Set 62 (For SDE-1)

- Difficulty Level : [Medium](#)
- Last Updated : 18 Jun, 2019

I recently went through the Amazon interview process for the post of SDE-1.

### Round 1 (Written)

1. [Given an array, output an array where every index contains nearest greatest element to that element on right side.](#)
2. [Program to convert sorted array to Binary Search Tree](#)
3. [Find first non-repeating character in String](#)

ex: geeksforgeeks: f  
geeksforgeeksFirst: o

### Round 2 (F2F)

1. Given linked list as a-x-b-y-c-z  
output it as a-b-c-z-y-x  
that is [reverse alternate element and append to end of list](#)

2. Output nearest number greater than given number such that output is palindrome  
ex: 121:131  
900:909  
99:101

### Round 3 (F2F)

1. <https://practice.geeksforgeeks.org/problems/vertical-sum/1> (I told him I know the solution, he proceeded further)
2. Given stream of Strings find top 5 words with maximum frequency or count
3. [Given 2 nodes in Binary Tree find distance between them](#)

### Round 4 (F2F with hiring manager)

1. Projects done so far, HR questions
2. Design LinkedIn and find till 2nd level connections and path between 2 connection  
for ex: if A is friend of B which is friend of C  
print between A and C A-B-C
3. Programming language: Java  
About synchronisation, serialization, transient and volatile keyword, Singleton Class

### Round 5 (Bar Raiser)

1. [Count Inversion in array](#) that is if  $i < j$  and  $a[i] > a[j]$   
Told the solution nlogn of divide and conquer. He asked another solution, then told by inserting in BST and whenever node goes to left side then adding 1 and number of children on right side. We have to keep track of count of right subtree in every node

### Round 6 (F2F)

1. HR questions (Why leaving company, projects, SWOT)
2. [Program to check for mirror tree](#)
3. Data Structure so that push, pop, getmin, getmax  $O(1)$  (using 3 stacks)
4. Data Structure so that push, pop, pop min, pop max  
Told Solution till  $O(\log n)$  by using min heap, max heap with pointers to doubly linked list nodes

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[All Practice Problems for Amazon !](#)

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