# Amazon Interview | Set 73 (For SDE-1)

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I have been interviewed for SDE1 by amazon. Here are the questions.

# 1st Round \xe2\x80\x93 Online Coding

- 1. Contiguous elements in an array whose sum is k.
- 2. Convert sorted array to binary search tree.

# 2nd Round \xe2\x80\x93 Telephonic

- 1. Implement stack with Push, Pop, GetMin and GetMax in constant time. Algo + Code
- 2. Given a matrix, sorted both horizontally and vertically, algo and code for finding an element in it. Algo
- 3. Given a stream of characters, convert it to a sentence with valid words. Assume you have a function IsWord which returns true if the passed string is a word. He asked me to write code and mail him. Algo + Code

Ex: lamgoodboy \xe2\x80\x93 I am good boy

# 3rd Round \xe2\x80\x93 Telephonic

1. <u>Given an array of characters, find the longest continuous non-repeating sequence of characters.</u>

Algo + Code

Ex: aabcdefdqhiaik \xe2\x80\x93 efdqhiaik

I have given a hash based solution, so he asked me to write a custom hashfunction and how to handle collisions.

2. Find the next largest palindrome number of the given number. Algo + Code Ex: 120 -121, 123 \xe2\x80\x93 131

## 4th Round \xe2\x80\x93 InHouse technical round

- 1. Find the mirror image of a binary tree. Algo + Code
- 2. Given a string, find the largest repetitive sequence. Algo + Code

Ex: abcdefbcd \xe2\x80\x93 bcd, banana \xe2\x80\x93 ana

#### 5th Round \xe2\x80\x93 InHouse technical round

1. Given a string, remove \xe2\x80\x98a\xe2\x80\x99, \xe2\x80\x98bc\xe2\x80\x99 from the string and print theresult. Algo + Code

Ex: asdbc \xe2\x80\x93 sd

2. You will be receiving an infinite sequence of numbers continuouslyand at any particular moment find the 10 largest ten numbers received till now. Algo

#### 6th Round \xe2\x80\x93 Bar raiser round

- 1. Given a graph, find the nodes which are at less than k distancefrom the given node. Continuation: find all the nodes which are less than k distance from m nodes. Algo + Code
- 2. Implement a queue using an array. All base conditions. Code
- 3. Given a very big array of millions of integers, find sum of all the elements.

Parallel processing and threads is the answer. Threads concept, synchronisation and so many of it.

- 4. OS concepts \xe2\x80\x93 virtual memory, paging, process states, paging algos.
- 5. In detailed explanation of projects done till date.

#### 7th Round \xe2\x80\x93 Manager Round

Asked dilemma situation. Any process development work, work experience and all.

geeksforgeeks helped me to refresh all kinds of topics. Thank you.

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## **All Practice Problems for Amazon!**

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