# **Amazon Interview Experience | SDE-1 (Off-Campus)**

Difficulty Level :\nHard

Last Updated :\n06 Jan, 2020

Amazon Interview Experience for SDE \xe2\x80\x93 1 Off campus Drive Hyderabad Location. 2019 passed out.

#### **Round 1: (Online Coding Round)**

This is a Hackerearth test, it consist of 20 MCQ majorly form DS, OS, CN and OOPS and few output questions and 2 programming questions.

- 1. https://leetcode.com/problems/reverse-string-ii/
- 2. https://leetcode.com/problems/course-schedule/

Above round is of 90 min. After some day I received a mail from HR that I was shortlisted for onsite rounds.

#### Round 2:\xc2\xa0(Face to face interview)

In this round 2 questions were asked which I have to be answered in 70 min and also write code for them on paper.

- 2. Given a array break the array into three sub-array by removing 2 elements of it, in such a way that all three sub-array have same sum. O(n) Time Complexity and O(1) space complexity.\xc2\xa0 \xc2\xa0 \xc2\xa

xc2xa0

#### Round 3:(Face to face interview)

In this also 2 questions were asked and also i have to write code for them on paper.

1. Given a string print the largest sub-string containing vowels in even counts.O(n)\xc2\xa0 \xc2\xa0

2.\xc2\xa0https://www.geeksforgeeks.org/minimum-number-platforms-required-railwaybus-station/

xc2xa0

### Round 4:(Face to face interview)

Interviewer start with discussion about my current profile work and also with a short discussion on my project(College Project). Then he asked me to design a algo for how to maintain server-load with load Balancer. (Not able to answer it basically he want to answer something like round robin type algorithm.) [This question was ask on the basis of my current work]

Now he jump to coding questions.

- 1. Given a data made up of BST which is dynamic(i.e nodes keep on adding as the user enter new details) he want me to convert that BST to Complete tree. [Have a healthy discussion on it about 10-15 min i gave him solution with rotations like in AVL and ultimately at end he agreed with a solution consist of in-order which run on the Batch basis.]. Then he told me to code the function which take tree as input and return root by changing it to complete tree.
- 2. Second he asked for a given a number \xe2\x80\x98n\xe2\x80\x99, print how many valid parenthesis strings containing \xe2\x80\x98(\xe2\x80\x98 or \xe2\x80\x98)\xe2\x80\x99 are possible of that length. I told its an application of Catalan Number then he want me to write a code to generate nth Catalan number without using formula basically he want me to write the Dynamic version of it. [https://www.geeksforgeeks.org/program-nth-catalan-number/]

Luckily i was able to write both codes in this round and after all 3 onsite rounds HR told me that i also have 1 more round i.e Bar Raiser round and she will share the detail via mail.

xc2xa0

## Round 5:(Bar Raiser)[On video call]

This round is with a very Senior person having 15+ years of experience, Interview started with his introduction, and then my introduction. Then he asked me my role in my current team and also want me to explain a situation in which i perform something which is completely different from my current role.[This is basically a Behavioural question so answer such question on the basis of there Leadership Principle.]

Then he jump to coding part.

- 2. Given a playlist of songs we have to shuffled that playlist.[Basically an application of https://www.geeksforgeeks.org/shuffle-a-given-array-using-fisher-yates-shuffle-algorithm/]

After 2 weeks i received a call from HR saying that Amazon is releasing an offer of SDE1 for me.

\xc2\xa0

#### **SOME TIPS:**

- 1. In all rounds you will be asked to write a production level code so be prepared for that.[But In first two round of face to face if your code is not perfect in one go and interviewer found 1, 2 corner cases which may fail in it the you may got a chance to correct it, all depend on the interviewer not sure about 3rd round as in my case i was able to write perfect code in one go]
- 2. In any round if you stuck, discuss it with interviewer as they definitely help you on that.
- 3. But in the last round i.e with BAR Raiser make sure to write complete code and moreover your code should be production ready i.e if he/she will able to find any case which fail in your code then there will be chance of rejection as he/she only read your code and said ok thats it for the day any questions for me and finished your interview, so make sure to write a perfect code before submitting to him.\xc2\xa0 \xc2\xa0 \xc2\xa0 [As one of my friend got rejected in Bar Raiser as he was not able to complete code]

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