Amazon Interview | Set 77 (Off-Campus For SDE-1 / 1.5yrs experienced)

Difficulty Level :\nHard

Last Updated :\n19 Jun, 2019

Amazon SDE1 Off campus

Written Round

- 1. Given an array in which elements are first increasing and then decreasing, find the maximum element in the array.
- 2. Given an array of unsorted elements, find the minimum difference between any 2 elements in the array.

1st f2f

Discussion about my projects (nearly 20 mins)

- 1. Given an array of positive numbers, find the maximum sum of a subsequence with the constraint that no 2 numbers in the sequence should be adjacent in the array. (extended to negative numbers)
- 2. Write a function to print the level order traversal of a binary tree in spiral form.

2nd f2f

Small discussion about my projects

- 1. Write a function to find the next smallest palindrome number of the given number. for example: if given number is 12345, then the next smallest palindrome is 12421.
- 2.Given 2 strings str1 and str2. What is the efficient way to navigate from str1 to str2? The constraints are i) a string can be changed to another string by changing only one character. ii) all the intermediate strings must be present in dictionary. If not possible, return \xe2\x80\x9cnot possible to navigate from str1 to str2\xe2\x80\x9d. (pre-processing is allowed and enough memory is available). for example: str1 = feel and str2 = pelt, then the navigation is feel -> felt -> pelt (Hint: Graph)

3rd f2f

Discussion about my projects (nearly 20 mins)

- 1. Given two numbers represented by two linked lists, write a function that returns sum list. The sum list is linked list representation of addition of two input numbers. It is not allowed to modify the lists. Also, not allowed to use explicit extra space.
- 2. Given a matrix of characters and a string, find whether the string can be obtained from the matrix. From each character in the matrix, we can move up/down/right/left. for example, if the matrix[3][4] is

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o f a s\r \ln l q w r \ln r u o w k
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and the string is follow, then the function should return true.

4th f2f Hiring Manager

Deep discussion about my current project (nearly 45 mins)

(application architecture, challenges faced and a lot of technical discussion)

1. Write a program to check whether the given binary tree is BST.

5th f2f Bar Raiser

Deep discussion about my current project (challenges faced, etc) nearly 20 mins

Deep discussion on REST api authentications (Hash key vs Encryption & Decryption) nearly 20 mins

1. Given an input string, write a function that returns the compressed string for the input string in INPLACE. (no extra memory) (length of compressed string < = length of input string) For example, if the input string is \xe2\x80\x9caaabcdeeee\xe2\x80\x9d, then the function should return \xe2\x80\x9ca3b1c1d1e4?. GeeksforGeeks helped me a lot in improving my skills in DS and Algorithms. 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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