Amazon Interview Experience | SDE-1 On-Campus

Difficulty Level :\nHard

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Round 1:

There were 2 coding questions 28 mcq.

Ques1: find inversion count

Ques2: find the longest common subsequence(LCS)

MCQs were related to coding only.

The platform for this round was \xe2\x80\x98mettl\xe2\x80\x99. Don\xe2\x80\x99t go for recursive codes on this platform.

Round 2:

There were 2 coding questions in this round.

Ques1: Two numbers \xe2\x80\x98a\xe2\x80\x99 and \xe2\x80\x98b\xe2\x80\x99 are given. Find the count of numbers which are divisible by both \xe2\x80\x98a\xe2\x80\x99 and \xe2\x80\x98b\xe2\x80\x99 and \xe2\x80\x98b\xe2\x80\x99 and are less than 10^16.

Ques2: People of Tribe A are living in a particular region. Then tribe B people shifted to the same region as of tribe A. People of tribe B doesn\xe2\x80\x99t like to see tribe A people. A person from tribe B wants to travel from the train which covers \xe2\x80\x98n\xe2\x80\x99 stations. You have been provided with an array of size \xe2\x80\x98n\xe2\x80\x99 in which each element represent the number of tribe A people who board the train at that station. Find the maximum number of stations the person can cover without seeing more than \xe2\x80\x98k\xe2\x80\x99 number of people of tribe A. Also find the maximum people the person can see while covering those number of stations. (Person can start and end at any station).

Hint: Basically the ques was to <u>find the longest subarray whose sum of the elements</u> doesn\xe2\x80\x99t exceed k\xc2\xa0(With some variation)

Round 3:

There were 2 coding questions in this round.

Ques1:

We are provided with a number \xe2\x80\x98n\xe2\x80\x99 which denotes the number of opening and closing parenthesis. Print all the valid combination of parenthesis.

Then this ques was modified to find the total number of valid combinations possible for a given \xe2\x80\x98n\xe2\x80\x99.

Optimized Solution: Time complexity: O(n^2) and Space Complexity: O(n^2)

Then he asked me to optimize space

Again optimized: Time complexity: O(n^2) and\xc2\xa0 Space Complexity: O(2n)=O(n)

Ques2:

We have a telescope and we can see an infinite number of stars(one by one). We have been provided with a method() that will calculate the distance of each star from us. So at any point print the closest \xe2\x80\x98k\xe2\x80\x99 stars which we can see.

Solution: use heap(priority queue)

Round 4:

There were 2 coding questions and technical questions

Ques1:

Fill two instances of all numbers from 1 to n in a specific way

Technical questions related to OS, OOPS, Computer Networks

Ques2:

There are infinite number of people visiting the Amazon website. A person can visit the website several time. A stream of number are coming that represent id of the person visiting the website and a fixed number \xe2\x80\x98k\xe2\x80\x99 is provided. At any particular time find \xe2\x80\x98k\xe2\x80\x99 people who have most visited our website.

Solution: use map and heap(priority queue)

Round 5: (Bar-raiser round)

Tell me something about yourself. Then questions on each term I was using.

Coding ques1:

Given an expression find whether it is valid or not.

This was implementation based ques and whether I am covering all the corner testcases or not.

This was the last round. 7 people were selected from my college.

Duration of each round was 60 to 90 minutes.

Be prepared to write code for each and every approach you are telling.

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