Amazon Interview Experience (On-Campus)

Difficulty Level :\nHard

Last Updated :\n22 Jul, 2019

Amazon On-Campus Hiring: 2019

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Round-1 (Online coding round):

It was 90 minutes long coding round on mettl test. It consisted of 2 coding questions and 28 MCQs. coding questions were easy to medium category. First question was to change one string into another with some modification (pretty much implementation question). In second question, you are given a string containing only 0 to 9\xc2\xa0 and you have to return string number modulo 11.\xc2\xa0 Around 60 people were selected for further rounds.

Suggestion: If you use c or c++ then please revise your pointer concepts because function inputs and return type are pointers on mettl. Also revise static and dynamic memory allocation because if you don\xe2\x80\x99t allocate memory using new or\xc2\xa0malloc\xc2\xa0 then your return pointer will point to NULL (many people got stuck).

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Round-2 (Face-to-face interview-1):

The Interviewer was very nice and calm. He started with asking me to introduce myself.

Q1. You are given two linked lists. Every node contains a digit between 0 to 9. You have to make new linked list that contains sum of both linked lists. Also you can not modify given linked lists.

Example:

input1 \xe2\x80\x93 head->7->9->NULL.

input2 \xe2\x80\x93 head->3->6->2->NULL.

output- head->4->4->1->NULL.

Q2. Hotel XYZ wants to conduct N meetings on particular day. You are given start time and end time for each meetings. You have to return minimum numbers of rooms required in XYZ hotel.

Example:

input \xe2\x80\x93 N: 6, \xc2\xa0 meetings timing \xe2\x80\x93 [9:00, 9:45], [9:30, 10:30], [10:40, 12:00], [11:00, 13:00], [11:45, 14:00], [16:00, 17:00]

output \xe2\x80\x93 3 rooms required.

He asked me to write down proper code for above questions. He tested it with some edge test cases. Then he asked me about different sorting techniques and questions like $\xe2\x80\x9c$ which cases quick sort runs $O(n^2)\xe2\x80\x9d$. This round lasted for an hour.

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Round-3 (Face-to-face interview-2):

The interviewer started with asking about myself and then moved to projects that I have done. After some questions on projects, \xc2\xa0 he started with the data-structure questions. I have to write proper code for both questions.

Q1. You are given a binary tree. You have to print it\xe2\x80\x99s outer border anti-clockwise.

Q2. You have given N x M matrix. each element in matrix is either 0, 1 or 2. \xe2\x80\x980\xe2\x80\x99 digit means that place is initially empty. \xe2\x80\x981\xe2\x80\x99 digit means that place contains \xe2\x80\x9cgood\xe2\x80\x9d mango. \xe2\x80\x982\xe2\x80\x99 digit means that place contains \xe2\x80\x9cbad\xe2\x80\x9d mango. In one day iteration, \xe2\x80\x9cgood\xe2\x80\x9d mango which is adjacent (up, down, left, right) to any \xe2\x80\x9cbad\xe2\x80\x9d mango will become \xe2\x80\x9cbad\xe2\x80\x9d mango. You start from first day and you have to find the minimum day when there will be no \xe2\x80\x9cgood\xe2\x80\x9d mango or output -1 if it is impossible.

I took too much time in first question. So, I did not come up with optimized solution for second question and had to give brute force one.\xc2\xa0 This round lasted for 45 minutes.

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Round-4 (Face-to-face interview-3):

I feel like this was the most difficult round for me but i got solution within some minutes.

Q.\xc2\xa0URL requests are coming in some server. Now you have to design some type of datastructure such that at any point of time you can return top 100 frequently coming URLs.

I came up with solution using hashmap and heap. But I am not allowed to use STL so i have to write implementation for hashmap and heap. Then he asked me some questions about OS, OOPs, and DBMS. This round lasted for an hour.

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Round-5 (Face-to-face interview-4):

This was the last round. The person interviewing me was looking like some senior developer. He stared with asking me about my area of interests, projects I have done, \xc2\xa0 etc. Then after some time he started DP question.

Q1.\xc2\xa0You have given rod of length n and array containing rod length and price. Now you have to return maximum price by cutting rod optimally.

Q2.\xc2\xa0You have given an array. You have to find next maximum for every index. -1 if there is no next maximum in array.

Then he started asking about OS questions like difference between process and thread, what is\xc2\xa0thrashing, what is process table and how it is used, different kinds of CPU scheduling algorithms, what are indexs (DBMS) and why and where they are used, mutex vs\xc2\xa0 semaphors, etc. Then he asked me two SQL queries. This round lasted for more than an hour.

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After one and half days of process, I was selected for the Amazon Winter Internship.

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