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Amazon Interview Experience | Set 375 (On Campus for Internship)

- Difficulty Level :\nHard
- Last Updated :\n11 Jul, 2019

Recently, Amazon visited our campus to recruit interns and FTEs. There were 3 rounds in all \xe2\x80\x93 1 Online Round followed by 2 F2F Interviews

Round 1: Online Round (90 minutes)
There were 2 coding questions and 20 MCQs mostly on Time Complexities (Master Theorem), Logical Reasoning, Data Structures and Algorithms, around 2 from OS, DBMS and Networking each.

The 2 coding questions were:

1. Find the sum of lengths of non-overlapping contiguous subarrays with k as the maximum element.

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   \r\n   Ex: Array: {2,1,4,9,2,3,8,3,4} and k = 4\r\n     Ans: 5 \r\n            {2,1,4} => Length = 3\r\n
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   Solution: GeeksforGeeks Link

2. You are given an array A where A[i] *(1-based indexing)* denotes the number of chocolates corresponding to each station. When we move from station **i** to station **i+1** we get ***A[i] \xe2\x80\x93 A[i+1]*** chocolates for free. Note that if this number is negative, we lose that many chocolates. We can only move from station i to station i+1 and that too if and only if we have non-negative number of chocolates with us. Given that cost of one chocolate is **Rs. P** , our task is to find the minimum cost incurred in reaching station **n** from the first station (station **1**).
   Solution: GeeksforGeeks Link

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   \r\nEx: A: {1,2,3} and P = 10\r\n Ans: 30\r\nTo reach station 1 from the starting station, we need to buy 1 chocolat
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   Out of around 150 students, 26 were shortlisted for Round 2.

   Round 2: FTF Interview (Around 30-40 minutes)
   First, the interviewer told me to introduce myself and then asked 3 coding questions:

   1. Search for an element in a row-wise and column-wise sorted 2D Matrix
      I started with a O(R*C) solution, followed it up with an O(RlogC) solution and finally gave the O(R+C) solution.
      Solution: GeeksforGeeks Link
   2. Given an array of n elements and a number, find a pair in the array with sum equal to that number.
      This question was followed up with finding a triplet with sum equal to Zero.
      Solution: GeeksforGeeks Link
   3. I was provided with a function ***int getval(int x)*** which basically takes the value of *x* and returns *f(x)*. Given that f(x) is a monotonically increasing function, my task was to find the smallest value of x such that f(x) > 0.

   Round 3: FTF Interview (Around 30 minutes)
   The interviewer once again asked me to introduce myself and asked 3 questions:

   1. What is Data Abstraction. Explain it with a real-life example.
   2. What are infix and postfix expressions. He then asked me to write a pseudo-code for converting infix expression to postfix expression.
      Solution: GeeksforGeeks Link
   3. Multiply 2 numbers without using Multiplication or Division operator, Bitwise operators or any loop.
      Solution: GeeksforGeeks Link

      I gave him a recursive approach and he was pretty happy with it

      Finally, he asked me if I had any questions for him.

   Out of the 26 selected for the interviews, 13 were finally selected for internship.

   During my preparation **GEEKSFORGEEKS**, indeed, was a great help. Preparing from articles under DS and Algo section would give anybody a definite chance to clear all rounds. A big thank you to other geeks as well for sharing their interview experiences as going through past experiences was the perfect way to end my preparations.

   This article is contributed by **Harsh Modi**. If you like GeeksforGeeks and would like to contribute, you can also write an article using contribute.geeksforgeeks.org or mail your article to contribute@geeksforgeeks.org. See your article appearing on the GeeksforGeeks main page and help other Geeks.

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