Amazon Interview | Set 39 (SDE)

- Difficulty Level :\nExpert
- Last Updated :\n04 Oct, 2019

I recently attended the walk-in process for Amazon Off campus recruitment drive. This was for SDE position at Chennai. I would like to share my interview experience with Geeks for Geeks.

Written Round:

- a) Given a linked list and 2 integers M and N.. Keep M nodes and delete N nodes repetitively till the end of linkedlist.
- b) Given a BST, replace a node value with the sum of all the elements larger than the current node.

\xc2\xa0\xa0\xc2\xa0\xa0\xa0\xa0\xa0\xa0\xa0\xa0\xa0\x

c) Given a BST and a value, check if the path sum from root to leaf equals the given value.

1st F2F round:

a) Multiply two linked lists represented by numbers. Only one linked list must be used to do all additions and store the result i.e., intermediate additions should not be done with extra linked lists and finally computing the result.

b) Given a BT check if there is a BST in it. If it exists print the largest BST in the BT.

c)Given a large file with huge number of words group the anagrams of a word

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 hai how are you. iahohw done woh.

o/p:

hai ->iah

how ->woh ->ohw

done are

2nd F2F round:

a) Given a linked list , print the nth last node. He asked me to give the optimised solution for it. solved using slow pointer.

b) Find the LCA in Binary Tree

\xc2\xa0\xc2\x

c) Given a zigzag traversal construct a tree from it. Full working code was asked.

\r\n eq. 1 3 2 4 5 6 7 9 8\r\n

1\r\n

2 3\r\n

4 5 6 7\r\n

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 Solved it with double ended queue.

3rd F2F round:

a) Given a chess board of finite length, start position of a knight, an end position.

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 ->find whether the end position is reachable by the knight.

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 I came up with a BFS solution instantly . He posed several conditions in the same question as I have seen the question already.

b) He changed the question to infinite length chess board and if given two knights in a chess board .find minimum hops required for them meet.

c) if we encode A-1, B-2, C-3, I send a word CAMP encoded as 311316. It can be decoded as 3 11 3 16 (CKCP), 3 1 1 3 16 (CAACP), 3 1 1 3 16 (CAACP)

\xc2\xa0\xc2\x

4th F2F round (Bar Raiser Round):

The Round started with the projects I have done so far. Few basic questions in cloud computing. I have used Amazon Web Service (AWS) in one of my projects. \xc2\xa0\xa0\xc2\x

\xc2\xa0\xc2\x

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 d) Strengths and Weakness.

 $\label{leave-my-previous-company-within 2-months.} $$ \xc2\xa0\xa0\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\x$

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 f) Given a linked list with random pointers , clone the linked list.

\xc2\xa0\xc2\x

Map < node * , node *> key is the node and value is the random ptr node.

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 g) Find the ceil and floor of a value in a given BST without extra space.

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 if a BST contains 1 3 6 7 9 12

\xc2\xa0\xc2\x

P.S. Be cautious in explaining your projects.

5th F2F round: (Hiring Manager Round):

Few questions on projects and advantages of AWS.

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 a) Asked me about the different inter process communication methods.

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 b) Which method is faster and why. Then he asked me to explain about shared memory

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\c) Asked to write the code to implement LRU cache.

\xc2\xa0\xa6..In the same order as given and only once\xe2\x80\xa6

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 ->i handled it with a binary semaphore and a single queue for both reader and writer..

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\f) conditions for a deadlock and he asked me to associate with the real life scenario.

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 mutual exclusion and all the cases.

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 g) Different types of scheduling and what type of scheduler does linux have and why.

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0 h) does linux have preemptive scheduling and few questions on virtual memory.

\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\xc2\xa0\frac{1}{2} and the just analysed my approach towards the problem and checked my basic understanding in OS concepts.

Finally got offer from Amazon after two days. I owe a great thanks to GeeksForGeeks. It helped me a lot to improve my data structure and problem solving skills. Hope this will help you. All the Best .

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!

My Personal Notes\narrow_drop_up

Add your personal notes her

Save

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