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C++ (g++ 5.4)

Test against custom input

Lowest Common Ancestor in a BST

Easy

Accuracy: 50.22%

Submissions: 86135

Points: 2

Given a Binary Search Tree (with all values unique) and two node values. Find the Lowest Common Ancestors of the two nodes in the BST.

Example 1:

Input:

```
graph TD
    5 --> 4
    5 --> 6
    4 --> 3
    6 --> 7
    7 --> 8
```

n1 = 7, n2 = 8

Output: 7

Example 2:

Input:

```
graph TD
    2 --> 1
    2 --> 3
```

n1 = 1, n2 = 3

Output: 2

Your Task:
You don't need to read input or print anything. Your task is to complete the function **LCA()** which takes the root Node of the BST and two integer values n1 and n2 as inputs and returns the Lowest Common Ancestor of the Nodes with values n1 and n2 in the given BST.

Expected Time Complexity: O(Height of the BST).
Expected Auxiliary Space: O(Height of the BST).

Constraints:
1 ≤ N ≤ 10⁴

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Problem Solved Successfully

You get marks only for the first correct submission if you solve the problem without viewing the full solution.

Related Courses

Test Cases Passed: 110 / 110

Total Time Taken: 0.2 / 1.38

Related Interview Experiences

110 / 110

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```
103  /*
104      LCA = Stores node pointer
105      ans = &LCA;
106
107      ans means address of LCA
108      *ans means value of LCA(LCA value is nothing but the address of Node)
109      **ans means value pointed by
110  */
111  void solve(Node* root, int n1, int n2, Node** ans){
112      if(root == NULL)
113          return;
114
115      if((root->data) < n1 and (root->data) < n2)
116          solve(root->right, n1, n2, ans);
117      else if((root->data) > n1 and (root->data) > n2)
118          solve(root->left, n1, n2, ans);
119      else *ans = root;
120  }
121  Node* LCA(Node *root, int n1, int n2)
122  {
123      //Your code here
124
125  }
```