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All Contests > SDA_HW_6 > Tree : Top View

Tree: Top View

locked



Problem

Submissions

Leaderboard

Discussions

You are given a pointer to the root of a binary tree. Print the top view of the binary tree.

Top view means when you look the tree from the top the nodes, what you will see will be called the top view of the tree. See the example below.

You only have to complete the function.

For example:



Top View: 1 -> 2 -> 5 -> 6

Input Format

You are given a function,

```
void topView(node * root) {
}
```

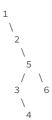
Constraints

 $1 \leq$ Nodes in the tree ≤ 500

Output Format

Print the values on a single line separated by space.

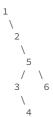
Sample Input



Sample Output

1256

Explanation



From the top only nodes 1,2,5,6 will be visible.

f in

Submissions: 162

Max Score: 10

Difficulty: Easy

Rate This Challenge:

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```
C++14
Current Buffer (saved locally, editable) & 49
                                                                                                         Ö
 1 ▶#include<↔
 2
 3
    using namespace std;
 4
 5 vclass Node {
        public:
 6
 7
             int data;
 8
            Node *left;
            Node *right;
 9
            Node(int d) {
10
11
                 data = d;
12
                 left = NULL;
13
                 right = NULL;
14
            }
15
    };
16
    class Solution {
17
        public:
18
            Node* insert(Node* root, int data) {
19 🔻
                 if(root == NULL) {
20 🔻
                     return new Node(data);
21
22 🔻
                 } else {
23
                     Node* cur;
                     if(data <= root->data) {
24 🔻
                         cur = insert(root->left, data);
25
                         root->left = cur;
26
27 🔻
                     } else {
                         cur = insert(root->right, data);
28
29
                         root->right = cur;
30
                     }
31
32
                    return root;
33
                }
34
            }
35 ▼/*
36
   class Node {
37
        public:
             int data;
38
            Node *left;
39
            Node *right;
40
41
            Node(int d) {
42
                 data = d;
                 left = NULL;
43
                 right = NULL;
44
45
            }
46
    };
```

```
47
48
49
        void topView(Node * root) {
50 ▼
51
52
53
        }
   }; //End of Solution
54
55
56 vint main() {
57
58
        Solution myTree;
        Node* root = NULL;
59
60
        int t;
61
62
        int data;
63
64
        std::cin >> t;
65
66
        while(t-- > 0) {
67
            std::cin >> data;
            root = myTree.insert(root, data);
68
69
        }
70
71
        myTree.topView(root);
72
73
        return 0;
   }
74
75
                                                                                                Line: 21 Col: 1
```

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Run Code

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<u>♣ Upload Code as File</u> Test against custom input