98. Validate Binary Search Tree

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Given a binary tree, determine if it is a valid binary search tree (BST).

Assume a BST is defined as follows:

- The left subtree of a node contains only nodes with keys **less than** the node's key.
- The right subtree of a node contains only nodes with keys **greater than** the node's key.
- Both the left and right subtrees must also be binary search trees.

Example 1:

```
  2
 / \
1   3
```

Binary tree `[2,1,3]`, return true.

Example 2:

```
  1
 / \
2   3
```

Binary tree `[1,2,3]`, return false.

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C++

```cpp
/**
 * Definition for a binary tree node.
 * struct TreeNode {
 *     int val;
 *     TreeNode *left;
 *     TreeNode *right;
 *     TreeNode(int x) : val(x), left(NULL), right(NULL) {}
 * };
 */
class Solution {
public:
    bool isValidBST(TreeNode* root) {
        long last = LONG_MIN;
        return helper(root,&last);
    }
    bool helper(TreeNode* root,long* last){
        if(root==NULL) return true;
        if(root->left!=NULL)
            if(!helper(root->left,last))
                return false;
        if(root->val<=*last) return false;
        *last = root->val;
        if(root->right==NULL) return true;
        return helper(root->right,last);
    }
};
```

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