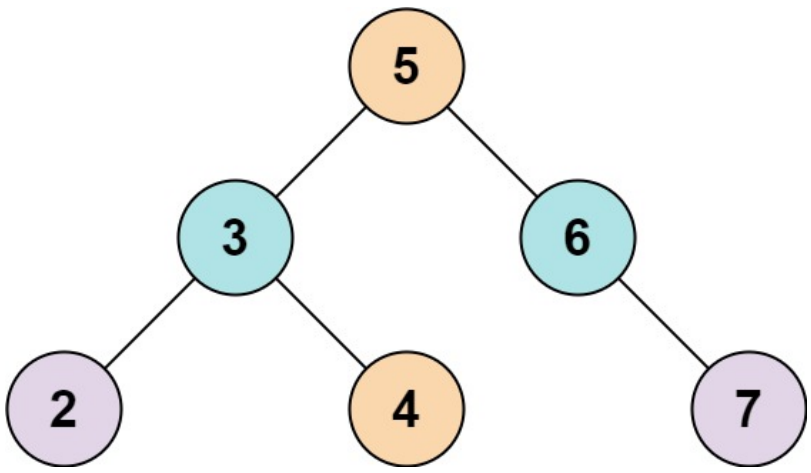
653. Two Sum IV - Input is a BST

Easy 4076 206 Add to List Share

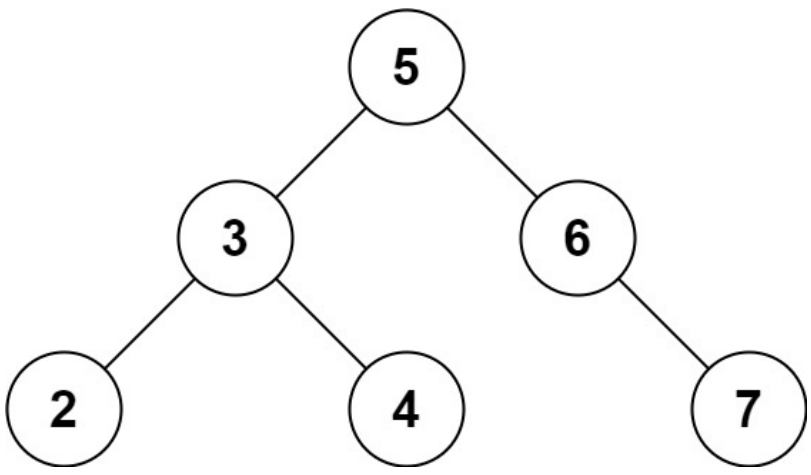
Given the `root` of a Binary Search Tree and a target number `k`, return *`true` if there exist two elements in the BST such that their sum is equal to the given target.*

Example 1:




```
Input: root = [5,3,6,2,4,null,7], k = 9
Output: true
```

Example 2:




```
Input: root = [5,3,6,2,4,null,7], k = 28
Output: false
```

Constraints:

- The number of nodes in the tree is in the range `[1, 10^4]`.
- `-10^4 <= Node.val <= 10^4`
- `root` is guaranteed to be a **valid** binary search tree.
- `-10^5 <= k <= 10^5`

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```cpp
/**
 * Definition for a binary tree node.
 * struct TreeNode {
 *     int val;
 *     TreeNode *left;
 *     TreeNode *right;
 *     TreeNode() : val(0), left(nullptr), right(nullptr) {}
 *     TreeNode(int x) : val(x), left(nullptr), right(nullptr) {}
 *     TreeNode(int x, TreeNode *left, TreeNode *right) : val(x), left(left), right(right) {}
 * };
 */
class Solution {
public:
    vector<int> v;
    void helper(TreeNode* root){
        if(root == NULL)
            return;
        helper(root->left);
        v.push_back(root->val);
        helper(root->right);
    }
    bool findTarget(TreeNode* root, int k) {
        helper(root);
        int start = 0;
        int end = v.size()-1;
        while(end > start){
            if(v[start] + v[end] == k)
                return true;
            else if(v[start] + v[end] > k)
                end--;
            else
                start++;
        }
        return false;
    }
};
```

Testcase Run Code Result Debugger

Accepted Runtime: 0 ms

Your input
```
[5,3,6,2,4,null,7]
9
```

Output `true` Diff

Expected `true`

Console Use Example Testcases