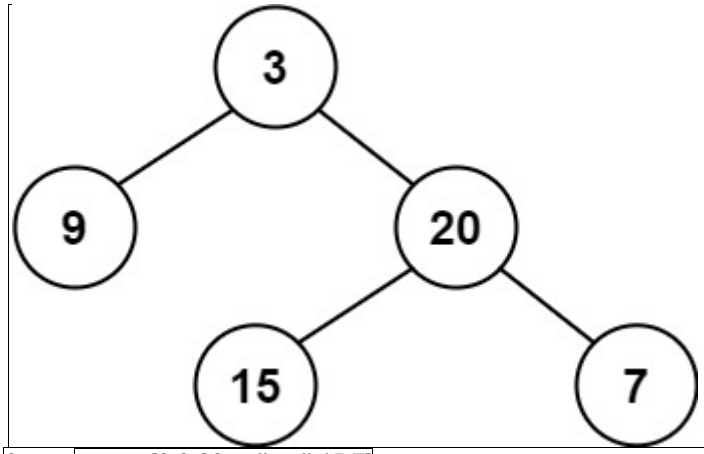
Leetcode Problem 1. (Easy)

Balanced Binary Tree

Given a binary tree, determine if it is

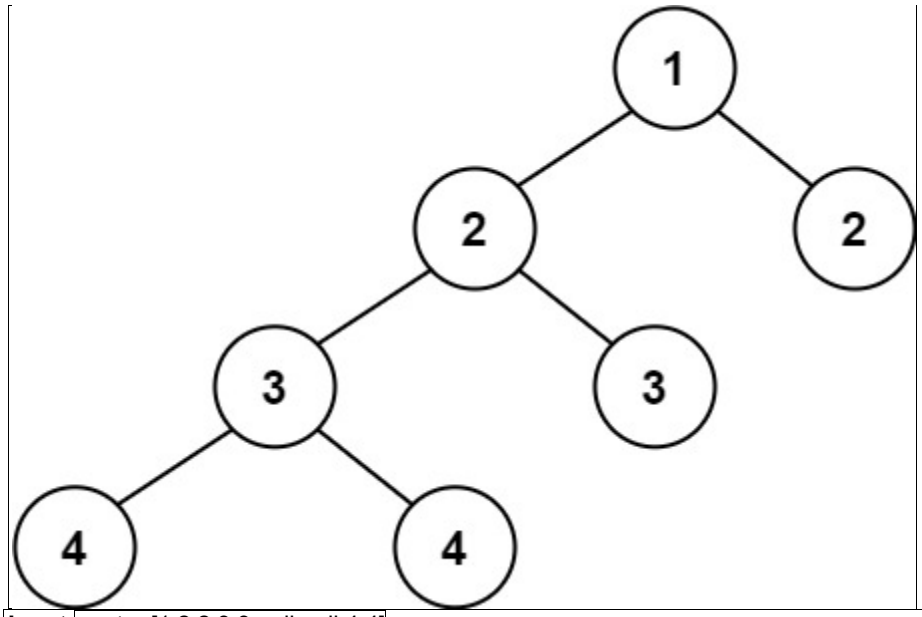
height-balanced
.

Example 1:



Input: root = [3,9,20,null,null,15,7]
Output: true

Example 2:



Input: root = [1,2,2,3,3,null,null,4,4]

Output: false

Example 3:

Input: root = []
Output: true

Constraints:

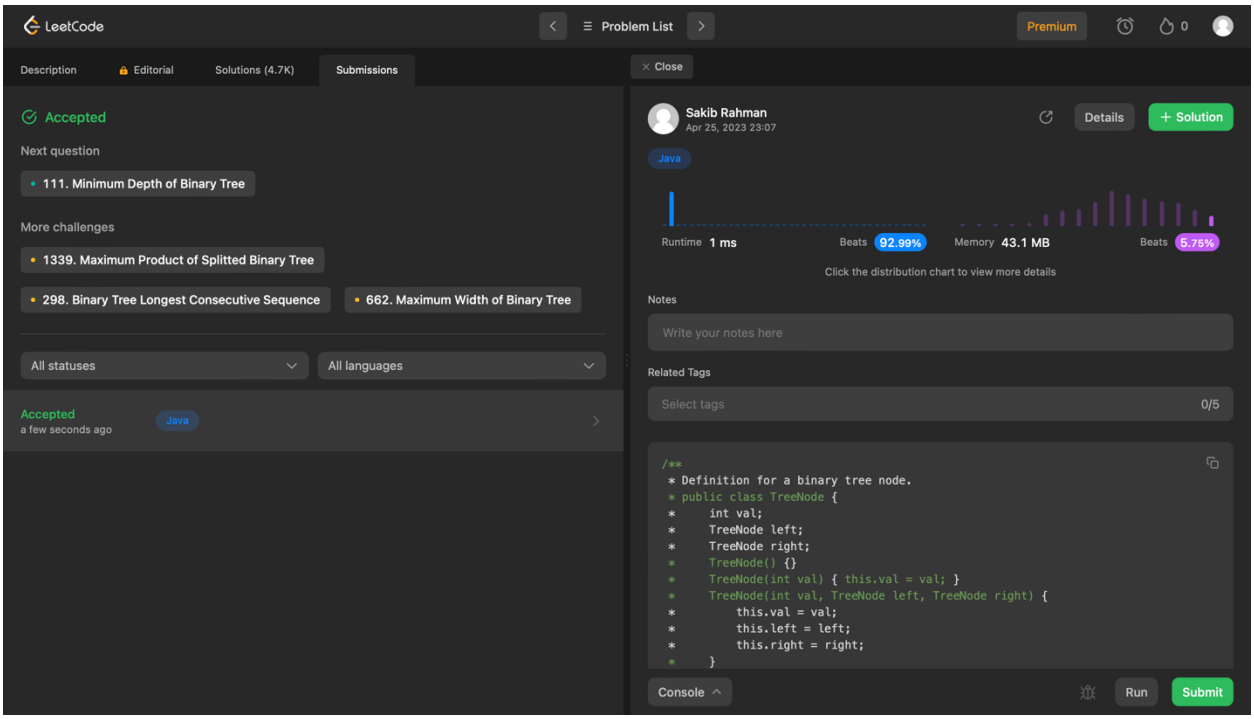
- The number of nodes in the tree is in the range [0, 5000].
- -10^4 <= Node.val <= 10^4

Link: https://leetcode.com/problems/balanced-binary-tree/

```java
class TreeNode {
    int val;
    TreeNode left;
    TreeNode right;
    TreeNode(int x) { val = x; }
}

class Solution {
    public boolean isBalanced(TreeNode root) {
        if (root == null) {
            return true;
        }
        int leftHeight = height(root.left);
        int rightHeight = height(root.right);
        if (Math.abs(leftHeight - rightHeight) > 1) {
            return false;
        }
        return isBalanced(root.left) && isBalanced(root.right);
    }

    private int height(TreeNode node) {
        if (node == null) {
            return 0;
        }
        int leftHeight = height(node.left);
        int rightHeight = height(node.right);
        return 1 + Math.max(leftHeight, rightHeight);
    }
}
```


LeetCode
Problem List
Premium
0
Description
Editorial
Solutions (4.7K)
Submissions
Accepted
Next question
111. Minimum Depth of Binary Tree
More challenges
1339. Maximum Product of Splitted Binary Tree
298. Binary Tree Longest Consecutive Sequence
662. Maximum Width of Binary Tree
All statuses
All languages
Accepted
a few seconds ago
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Sakib Rahman
Apr 25, 2023 23:07
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Beats 92.99%
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Beats 5.75%
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/**
* Definition for a binary tree node.
* public class TreeNode {
*   int val;
*   TreeNode left;
*   TreeNode right;
*   TreeNode() {}
*   TreeNode(int val) { this.val = val; }
*   TreeNode(int val, TreeNode left, TreeNode right) {
*   this.val = val;
*   this.left = left;
*   this.right = right;
*   }
Console
Run
Submit