

Description

Solution

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572. Subtree of Another Tree

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Given two **non-empty** binary trees **s** and **t**, check whether tree **t** has exactly the same structure and node values with a subtree of **s**. A subtree of **s** is a tree consists of a node in **s** and all of this node's descendants. The tree **s** could also be considered as a subtree of itself.

Example 1:
Given tree s:

3
/ \
4 5
/ \
1 2

Given tree t:

4
/ \
1 2

Return **true**, because t has the same structure and node values with a subtree of s.

Example 2:
Given tree s:

3
/ \
4 5
/ \

JavaAutocomplete

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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;
 *     }
 * }
 */
class Solution {
    public boolean isSubtree(TreeNode source, TreeNode trans)
    {

        if(source == null || trans == null) return false;
        boolean machingWithParent = isMatched(source, trans);
        boolean machingWithLeft = isSubtree(source.left,
trans);
        boolean machingWithRight = isSubtree(source.right,
trans);

        return (machingWithParent || machingWithLeft ||
machingWithRight);
    }

    private boolean isMatched(TreeNode source, TreeNode trans)
    {
        if ((source == null && trans == null))
            return true;
        if (source == null || trans == null)
            return false;
        return (source.val == trans.val) &&
```

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