Invert/Flip Binary Tree

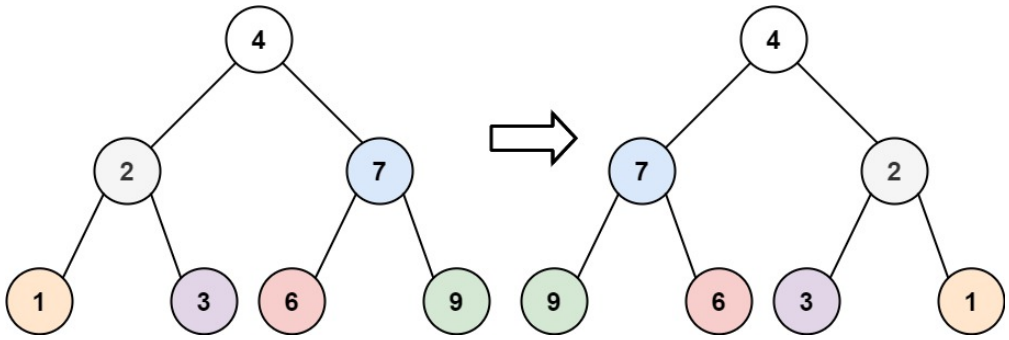
Difficulty	Easy
Category	Tree
Question	https://leetcode.com/problems/invert-binary-tree/
Solution	https://youtu.be/OnSn2XEQ4MY
Status	Done

Question

> Given the `root` of a binary tree, invert the tree, and return *its root*.

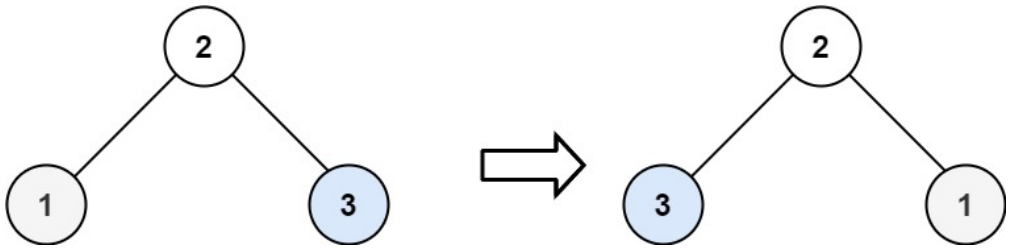
Example

Example 1:




```
Input: root = [4,2,7,1,3,6,9]
Output: [4,7,2,9,6,3,1]
```

Example 2:




```
Input: root = [2,1,3]
Output: [2,3,1]
```

Example 3:

```
Input: root = []
Output: []
```

Idea

💡 Invert left and right part of the tree, apply the recursion on children/subtrees as well

Solution

```
# Definition for a binary tree node.
# class TreeNode:
#     def __init__(self, val=0, left=None, right=None):
#         self.val = val
#         self.left = left
#         self.right = right
class Solution:
    def invertTree(self, root: Optional[TreeNode]) -> Optional[TreeNode]:
        if not root:
            return None

        # swap the children
        root.left, root.right = root.right, root.left

        #recursive call
```

```
        self.invertTree(root.left)
        self.invertTree(root.right)

        return root
```

Explanation