Problem Summary

Given the root of a binary tree, flip the tree so that left and right subtrees are swapped at every node

Key Idea

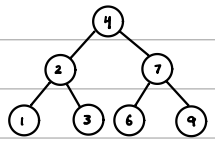
At every node:

→ Swap left and right subtree

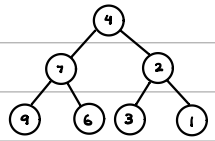
→ Recursively invert both subtrees

Diagram Examples

Before:



After:



Approach

1) If node is null → return

2) Swap left and right children

3) Recursively invert left subtree

4) Recursively invert right subtree

5) Return root

Time Complexity: O(n) → Each node is visited once

Space Complexity: O(h) → Recursion stack, where h is tree height