Invert Binary Tree

Key Idea:

To invert a binary tree, swap the left and right child for every node.

- Can be done via:
  - Recursion (DFS)
  - Iterative BFS (queue) & Iterative DFS (stack)

Recursive Approach:

Algorithm:

1. If root is null, return null.
2. Swap root → left and root → right.
3. Recursively invert root → left and root → right.
4. Return root.

Complexity:

- Time: O(N) - visit each node once.
- Space: O(H) for recursion (worst O(N) if skewed tree) & O(N) for BFS queue.