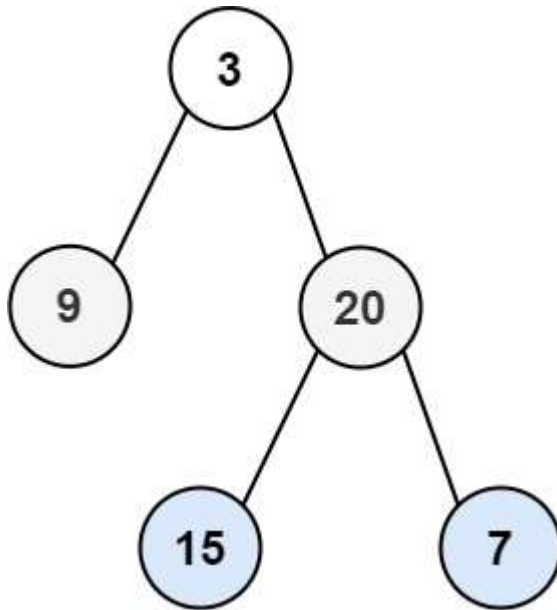


Binary Tree Zigzag Level Order Traversal

Given the root of a binary tree, return *the zigzag level order traversal of its nodes' values*. (i.e., from left to right, then right to left for the next level and alternate between).

Example 1:



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

Output: [[3],[20,9],[15,7]]

Example 2:

Input: root = [1]

Output: [[1]]

Example 3:

Input: root = []

Output: []

Constraints:

- The number of nodes in the tree is in the range [0, 2000].
- $-100 \leq \text{Node.val} \leq 100$