

102. Binary Tree Level Order Traversal

Given a binary tree, return the level order traversal of its nodes' values. (ie, from left to right, level by level).

For example: Given binary tree [3,9,20,null,null,15,7],

```
    3
   / \
  9  20
   / \
  15  7
```

return its level order traversal as:

```
[
  [3],
  [9,20],
  [15,7]
]
```

```
class Solution {
    public List<List<Integer>> levelOrder(TreeNode root) {

        List<List<Integer>> result = new ArrayList<>();

        if (root == null)
            return result;

        Queue<TreeNode> queue = new LinkedList<>();
        queue.offer(root);

        while(!queue.isEmpty()) {
            List<Integer> list = new ArrayList<>();
            int size = queue.size();

            for (int i = 0; i < size; i++) {
                TreeNode node = queue.poll();
                list.add(node.val);

                if (node.left != null)
                    queue.add(node.left);

                if (node.right != null)
                    queue.add(node.right);
            }

            result.add(list);
        }

        return result;
    }
}
```