

以下是修改后的代码：

```
def maxDepth(self, root: TreeNode) -> int:
    if not root: return 0
    queue, res = [root], 0
    while queue:
        tmp = []
        for node in queue:
            if node.left: tmp.append(node.left)
            if node.right: tmp.append(node.right)
        queue = tmp
        res = max(res, len(queue))
    return res
```

在这个代码中，每次取出一个节点时，我们只将该节点的左右子树中非空的部分加入到队列中，并计算队列的长度。然后，我们将队列长度与当前最大深度进行比较，并更新最大深度。这样就可以正确地计算出二叉树的最大深度了。

The problem with this code is that it does not correctly handle the depth of the left and right subtrees. Specifically, when a node is taken out from the queue, it adds both its left and right subtrees to the queue and increases the length of the queue by one. However, if either the left or right subtree of the node is empty, then the depth of this node should be the length of the queue minus one, not the length of the queue plus one.

Here is the modified code:

```
def maxDepth(self, root: TreeNode) -> int:
    if not root: return 0
    queue, res = [root], 0
    while queue:
        tmp = []
        for node in queue:
            if node.left: tmp.append(node.left)
            if node.right: tmp.append(node.right)
        queue = tmp
        res = max(res, len(queue))
    return res
```

In this code, when each node is extracted, we only add the non-empty parts of its left and right subtrees to the queue, and calculate the length of the queue. Then, we compare the length of the queue with the current maximum depth and update the maximum depth. This way, we can correctly calculate the maximum depth of the binary tree.