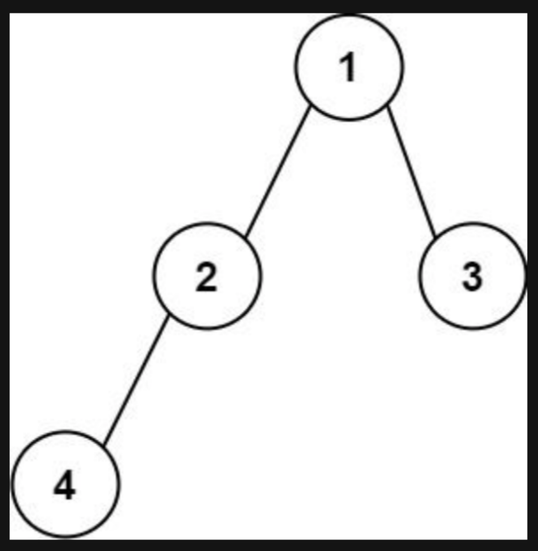
606. Construct String from Binary Tree

Description

Given the `root` of a binary tree, construct a string consisting of parenthesis and integers from a binary tree with the preorder traversal way, and return it.

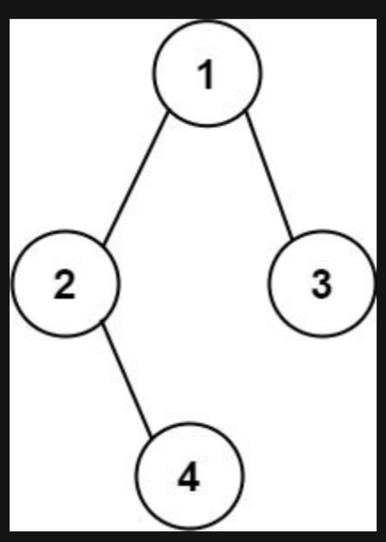
Omit all the empty parenthesis pairs that do not affect the one-to-one mapping relationship between the string and the original binary tree.

Example 1:




```
Input: root = [1,2,3,4]
Output: "1(2(4))(3)"
Explanation: Originally, it needs to be "1(2(4())(3()())", but you need to omit all the unnecessary empty parenthesis pairs. And it will be "1(2(4))(3)"
```

Example 2:




```
Input: root = [1,2,3,null,4]
Output: "1(2()(4))(3)"
Explanation: Almost the same as the first example, except we cannot omit the first parenthesis pair to break the one-to-one mapping relationship between the input and the output.
```

Constraints:

- The number of nodes in the tree is in the range `[1, 10^4]`.
- `-1000 <= Node.val <= 1000`