1666. Change the Root of a Binary Tree

Description

Given the `root` of a binary tree and a `leaf` node, reroot the tree so that the `leaf` is the new root.

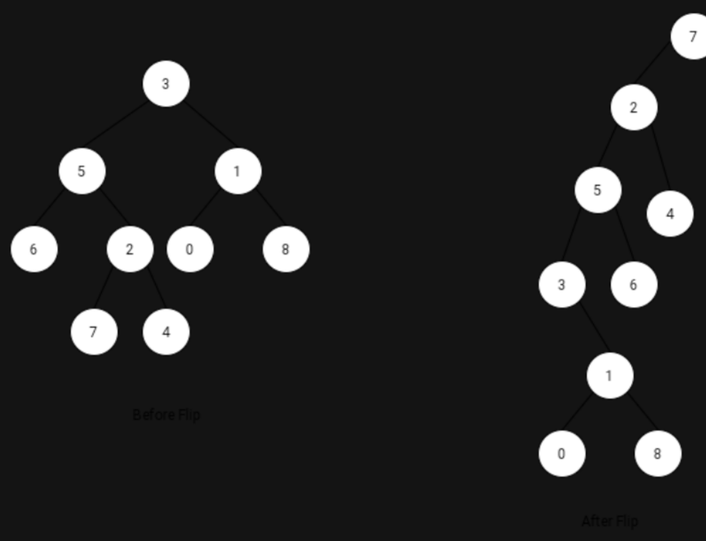
You can reroot the tree with the following steps for each node `cur` on the path **starting from the** `leaf` up to the `root` **excluding the root**:

1. If `cur` has a left child, then that child becomes `cur`'s right child.
2. `cur`'s original parent becomes `cur`'s left child. Note that in this process the original parent's pointer to `cur` becomes `null`, making it have at most one child.

Return *the new root of the rerooted tree.*

Note: Ensure that your solution sets the `Node.parent` pointers correctly after rerooting or you will receive "Wrong Answer".

Example 1:




```
Input: root = [3,5,1,6,2,0,8,null,null,7,4], leaf = 7
Output: [7,2,null,5,4,3,6,null,null,null,1,null,null,0,8]
```

Example 2:

```
Input: root = [3,5,1,6,2,0,8,null,null,7,4], leaf = 0
Output: [0,1,null,3,8,5,null,null,null,6,2,null,null,7,4]
```

Constraints:

- The number of nodes in the tree is in the range `[2, 100]`.
- `-10^9 <= Node.val <= 10^9`
- All `Node.val` are **unique**.
- `leaf` exist in the tree.