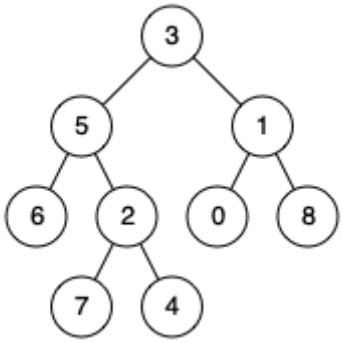
1644. Lowest Common Ancestor of a Binary Tree II

Medium 508 25 Add to List Share

Given the `root` of a binary tree, return *the lowest common ancestor (LCA) of two given nodes,* `p` *and* `q` . If eith node `p` or `q` **does not exist** in the tree, return `null` . All values of the nodes in the tree are **unique**.

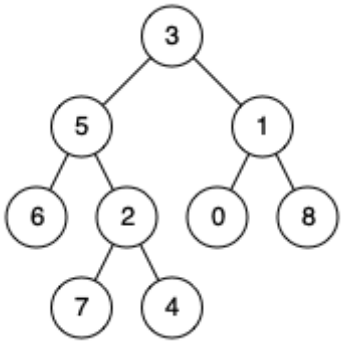
According to the **definition of LCA on Wikipedia**: "The lowest common ancestor of two nodes `p` and `q` in a bir tree `T` is the lowest node that has both `p` and `q` as **descendants** (where we allow **a node to be a descendant itself**)". A **descendant** of a node `x` is a node `y` that is on the path from node `x` to some leaf node.

Example 1:




```
Input: root = [3,5,1,6,2,0,8,null,null,7,4], p = 5, q = 1
Output: 3
Explanation: The LCA of nodes 5 and 1 is 3.
```

Example 2:




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