1123. Lowest Common Ancestor of Deepest Leaves

Medium 9 27 Favorite Share

Given a rooted binary tree, return the lowest common ancestor of its deepest leaves.

Recall that:

- The node of a binary tree is a *leaf* if and only if it has no children
- The *depth* of the root of the tree is 0, and if the depth of a node is `d`, the depth of each of its children is `d+1`.
- The *lowest common ancestor* of a set `S` of nodes is the node `A` with the largest depth such that every node in S is in the subtree with root `A`.

Example 1:

```
Input: root = [1,2,3]
Output: [1,2,3]
Explanation:
The deepest leaves are the nodes with values 2 and 3.
The lowest common ancestor of these leaves is the node with value 1.
The answer returned is a TreeNode object (not an array) with serialization "[1,2,3]".
```

Example 2:

```
Input: root = [1,2,3,4]
Output: [4]
```

Example 3:

```
Input: root = [1,2,3,4,5]
Output: [2,4,5]
```

Constraints:

- The given tree will have between 1 and 1000 nodes.
- Each node of the tree will have a distinct value between 1 and 1000.

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