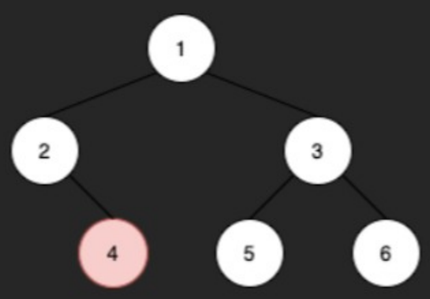
1602. Find Nearest Right Node in Binary Tree Premium

Medium | Topics | Companies | Hint

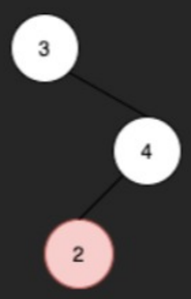
Given the `root` of a binary tree and a node `u` in the tree, return *the **nearest** node on the **same level** that is to the **right** of `u`, or return `null` if `u` is the rightmost node in its level.*

Example 1:




```
Input: root = [1,2,3,null,4,5,6], u = 4
Output: 5
Explanation: The nearest node on the same level to the right of node 4 is node 5.
```

Example 2:




```
Input: root = [3,null,4,2], u = 2
Output: null
Explanation: There are no nodes to the right of 2.
```

Constraints:

- The number of nodes in the tree is in the range `[1, 10^5]`.
- `1 <= Node.val <= 10^5`
- All values in the tree are **distinct**.
- `u` is a node in the binary tree rooted at `root`.

Seen this question in a real interview before? 1/5

Yes No

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Hint 1

Use BFS, traverse the tree level by level and always push the left node first

Hint 2

When you reach the target node, mark a boolean variable true

Hint 3

If you meet another node in the same level after marking the boolean true, return this node.

Hint 4

If you did not meet new nodes in the same level and started traversing a new level, return Null

Discussion (2)