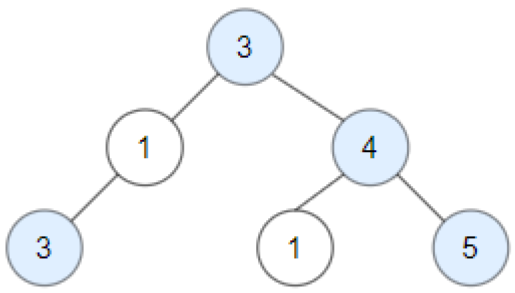
1448. Count Good Nodes in Binary Tree

Given a binary tree `root`, a node *X* in the tree is named **good** if in the path from root to *X* there are no nodes with a value *greater than* X.

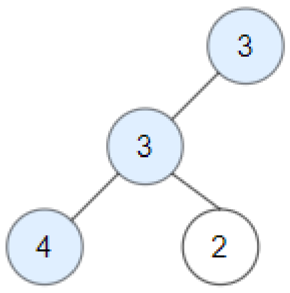
Return the number of **good** nodes in the binary tree.

Example 1:



```
Input: root = [3,1,4,3,null,1,5]
Output: 4
Explanation: Nodes in blue are good.
Root Node (3) is always a good node.
Node 4 -> (3,4) is the maximum value in the path starting from the root.
Node 5 -> (3,4,5) is the maximum value in the path
Node 3 -> (3,1,3) is the maximum value in the path.
```

Example 2:



```
Input: root = [3,3,null,4,2]
Output: 3
Explanation: Node 2 -> (3, 3, 2) is not good, because "3" is higher than it.
```

Example 3:

```
Input: root = [1]
Output: 1
```

```
Explanation: Root is considered as good.
```

Constraints:

- The number of nodes in the binary tree is in the range `[1, 10^5]`.
- Each node's value is between `[-10^4, 10^4]`.

```python
class Solution:
    def goodNodes(self, root: TreeNode) -> int:
        ans = [0]
        largestVal = -10001
        self.helper(root,ans,largestVal)
        return ans[0]


    def helper(self,root,ans,refVal):
        if root is None:
            return

        if refVal<=root.val:
            ans[0] = ans[0]+1
            refVal = root.val
        self.helper(root.left,ans,refVal)
        self.helper(root.right,ans,refVal)
```