AlgoExpert Quad Layout Python 12px Sublime Monok

Prompt Scratchpad Our Solution(s) Video Explanation Run Code

```
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 1
 2
 3
     # Average case: when the tree is balanced
 4
     \# O(nlog(n)) time | O(h) space - where n is the number of nodes in
 5
     # the Binary Tree and h is the height of the Binary Tree
 6 ▼ def allKindsOfNodeDepths(root):
 7 ▼
         if root is None:
 8
             return 0
9
         return allKindsOfNodeDepths(root.left) + allKindsOfNodeDepths(root.right) + nodeDepths(root)
10
11
12 ▼ def nodeDepths(node, depth=0):
         if node is None:
13 ▼
14
             return 0
         return depth + nodeDepths(node.left, depth + 1) + nodeDepths(node.right, depth + 1)
15
16
17
     \ensuremath{\text{\#}} This is the class of the input binary tree.
18
19 ▼ class BinaryTree:
20 ▼
         def __init__(self, value):
21
             self.value = value
             self.left = None
22
23
             self.right = None
```

Solution 4

Solution 1

24

Solution 2

Solution 3