AlgoExpert Quad Layout Go 12px Sublime Monok

Prompt Scratchpad Our Solution(s) Video Explanation Run Code

```
Solution 1 Solution 2 Solution 3 Solution 4
```

26

```
// Copyright © 2020 AlgoExpert, LLC. All rights reserved.
 1
 2
 3
     package main
 4
5 ▼ type BinaryTree struct {
 6
      Value
                int
 7
      Left, Right *BinaryTree
 8
    }
9
    // Average case: when the tree is balanced
10
11
     // O(nlog(n)) time \mid O(h) space - where n is the number of nodes in
    // the Binary Tree and h is the height of the Binary Tree
12
13 ▼ func AllKindsOfNodeDepths(root *BinaryTree) int {
14 ▼ if root == nil {
        return 0
15
16
      }
17
      return AllKindsOfNodeDepths(root.Left) + AllKindsOfNodeDepths(root.Right) + nodeDepths(root, 0)
    }
18
19
20 ▼ func nodeDepths(node *BinaryTree, depth int) int {
21 ▼ if node == nil {
        return 0
22
23
      }
      return depth + nodeDepths(node.Left, depth+1) + nodeDepths(node.Right, depth+1)
25
    }
```