```
1  // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3  // Average case: when the tree is balanced
4  // O(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  function nodeDepths(root, depth = 0) {
7    if (root === null) return 0;
8    return depth + nodeDepths(root.left, depth + 1) + nodeDepths(root.right, depth + 1);
9  }
10
11 // This is the class of the input binary tree.
12 class BinaryTree {
13   constructor(value) {
14     this.value = value;
15     this.left = null;
16     this.right = null;
17   }
18 }
19
20 exports.nodeDepths = nodeDepths;
21
```