

Solution 1Solution 2

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 class BinaryTree {
4   constructor(value) {
5     this.value = value;
6     this.left = null;
7     this.right = null;
8   }
9 }
10
11 // O(n) time | O(d) space - where n is the number of nodes in the Binary Tree and d is the depth (height) of the Binary Tree
12 function flattenBinaryTree(root) {
13   const [leftMost, _] = flattenTree(root);
14   return leftMost;
15 }
16
17 function flattenTree(node) {
18   let leftMost, rightMost;
19
20   if (node.left === null) {
21     leftMost = node;
22   } else {
23     const [leftSubtreeLeftMost, leftSubtreeRightMost] = flattenTree(node.left);
24     connectNodes(leftSubtreeRightMost, node);
25     leftMost = leftSubtreeLeftMost;
26   }
27
28   if (node.right === null) {
29     rightMost = node;
30   } else {
31     const [rightSubtreeLeftMost, rightSubtreeRightMost] = flattenTree(node.right);
32     connectNodes(node, rightSubtreeLeftMost);
33     rightMost = rightSubtreeRightMost;
34   }
35
36   return [leftMost, rightMost];
37 }
38
39 function connectNodes(left, right) {
40   left.right = right;
41   right.left = left;
42 }
43
44 exports.BinaryTree = BinaryTree;
45 exports.flattenBinaryTree = flattenBinaryTree;
46
```

