AlgoExpert Quad Layout Java 12px Sublime Monok

Prompt Scratchpad Our Solution(s) Video Explanation

Run Code

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

```
// Copyright © 2020 AlgoExpert, LLC. All rights reserved.
 2
 3
   ▼ import java.util.*;
 4
 5 ▼ class Program {
 6
       // O(n) time \mid O(n) space - where n is the length of the array
 7 ▼
       public static BST minHeightBst(List<Integer> array) {
         return constructMinHeightBst(array, null, 0, array.size() - 1);
 9
10
      public static BST constructMinHeightBst(List<Integer> array, BST bst, int startIdx, int endIdx) {
12
         if (endIdx < startIdx) return null;</pre>
13
         int midIdx = (startIdx + endIdx) / 2;
         BST newBstNode = new BST(array.get(midIdx));
14
15 ▼
         if (bst == null) {
16
          bst = newBstNode;
17 ▼
         } else {
           if (array.get(midIdx) < bst.value) {</pre>
18 ▼
             bst.left = newBstNode;
19
20
             bst = bst.left;
           } else {
21 ▼
             bst.right = newBstNode;
22
             bst = bst.right;
23
24
           }
         }
25
         constructMinHeightBst(array, bst, startIdx, midIdx - 1);
26
         constructMinHeightBst(array, bst, midIdx + 1, endIdx);
27
         return bst;
28
29
30
31
       static class BST {
         public int value;
32
33
         public BST left;
34
         public BST right;
35
36
         public BST(int value) {
37
           this.value = value;
           left = null;
38
           right = null;
39
40
41
42
         // We don't use this method for this solution.
         public void insert(int value) {
43 ▼
44 🔻
           if (value < this.value) {</pre>
45 ▼
             if (left == null) {
46
               left = new BST(value);
47 ▼
             } else {
48
               left.insert(value);
49
             }
           } else {
50 ▼
51
             if (right == null) {
               right = new BST(value);
52
53 ▼
             } else {
               right.insert(value);
54
55
56
57
58
59
```