

1008. Construct Binary Search Tree from Preorder Traversal

Medium 2833 55 Add to List Share

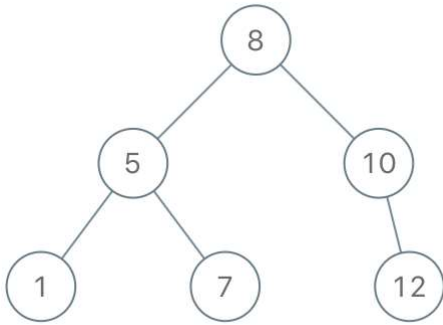
Given an array of integers `preorder`, which represents the **preorder traversal** of a BST (i.e., **binary search tree**), construct the tree and return *its root*.

It is **guaranteed** that there is always possible to find a binary search tree with the given requirements for the given test cases.

A **binary search tree** is a binary tree where for every node, any descendant of `Node.left` has a value **strictly less than** `Node.val`, and any descendant of `Node.right` has a value **strictly greater than** `Node.val`.

A **preorder traversal** of a binary tree displays the value of the node first, then traverses `Node.left`, then traverses `Node.right`.

Example 1:

Input: `preorder = [8,5,1,7,10,12]`Output: `[8,5,10,1,7,null,12]`

Example 2:

Input: `preorder = [1,3]`Output: `[1,null,3]`

Constraints:

- `1 <= preorder.length <= 100`
- `1 <= preorder[i] <= 1000`
- All the values of `preorder` are **unique**.

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Yes

No

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```
1 /**
2  * Definition for a binary tree node.
3  * public class TreeNode {
4  *     int val;
5  *     TreeNode left;
6  *     TreeNode right;
7  *     TreeNode() {}
8  *     TreeNode(int val) { this.val = val; }
9  *     TreeNode(int val, TreeNode left, TreeNode right) {
10 *         this.val = val;
11 *         this.left = left;
12 *         this.right = right;
13 *     }
14 * }
15 */
16 class Solution {
17     public TreeNode bstFromPreorder(int[] preorder) {
18     }
19 }
20 }
```