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## 108. Convert Sorted Array to Binary Search Tree

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Given an array where elements are sorted in ascending order, convert it to a height balanced BST.

For this problem, a height-balanced binary tree is defined as a binary tree in which the depth of the two subtrees of *every* node never differ by more than 1.

**Example:**

```
Given the sorted array: [-10,-3,0,5,9],

One possible answer is: [0,-3,9,-10,null,5], which represents the
following height balanced BST:

      0
     / \
   -3   9
   /   /
 -10  5
```

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Seen this question in a real interview before? Yes No

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```java
/**
 * Definition for a binary tree node.
 * public class TreeNode {
 *     int val;
 *     TreeNode left;
 *     TreeNode right;
 *     TreeNode() {}
 *     TreeNode(int val) { this.val = val; }
 *     TreeNode(int val, TreeNode left, TreeNode right) {
 *         this.val = val;
 *         this.left = left;
 *         this.right = right;
 *     }
 * }
 */
class Solution {
    public TreeNode sortedArrayToBST(int[] nums) {
     if(nums.length == 0 || nums == null) return null;
        int start = 0;
        int end = nums.length-1;
        return sortedArrayToBST(nums, start, end);
    }

    private static TreeNode sortedArrayToBST(int[] nums, int start, int end) {
        int middle = (start+end)/2;

        TreeNode tree = new TreeNode(nums[middle]);

        if(start < middle ) tree.left = sortedArrayToBST(nums, start, middle - 1);
        if(middle < end ) tree.right = sortedArrayToBST(nums, middle + 1, end);

        return tree;
    }
}
```

Your previous code was restored from your local storage. Reset to default