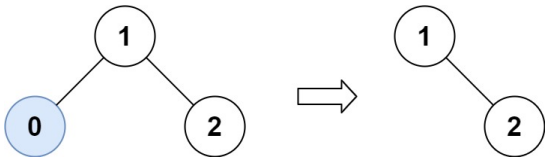
669. Trim a Binary Search Tree

Medium 3813 225 Add to List Share

Given the `root` of a binary search tree and the lowest and highest boundaries as `low` and `high`, trim the tree so that all its elements lies in `[low, high]`. Trimming the tree should **not** change the relative structure of the elements that will remain in the tree (i.e., any node's descendant should remain a descendant). It can be proven that there is a **unique answer**.

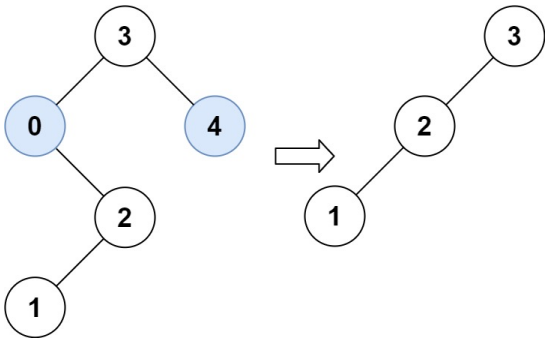
Return *the root of the trimmed binary search tree*. Note that the root may change depending on the given bounds.

Example 1:




```
Input: root = [1,0,2], low = 1, high = 2
Output: [1,null,2]
```

Example 2:




```
Input: root = [3,0,4,null,2,null,null,1], low = 1, high = 3
Output: [3,2,null,1]
```

Constraints:

- The number of nodes in the tree in the range `[1, 10^4]`.
- `0 <= Node.val <= 10^4`
- The value of each node in the tree is **unique**.
- `root` is guaranteed to be a valid binary search tree.
- `0 <= low <= high <= 10^4`

Accepted 197,154 Submissions 303,432

Seen this question in a real interview before? Yes No

Companies

Related Topics

Java Autocomplete

```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 trimBST(TreeNode root, int low, int high) {

    }
}
```