Assignment on Binary Search Tree:

1. Write a program that takes as input a binary tree and checks if the tree satisfies the BST property.

2. Write a program that takes as input a BST and a value, and returns the first key that would appear in an inorder traversal which is greater than the input value.

3. Write a program that takes as input a BST and an integer *k,* and returns the *k* largest elements in the BST in decreasing order.

4. Design efficient functions for inserting and removing keys in a BST. Assume that all elements in the BST are unique, and that your insertion method must preserve this property.