Assignment 15

Design a pseudo code algorithm **isValidAVL(T)** that decides whether or not a binary tree is a valid AVL tree. For this problem, we define valid to mean that the height of the left and right sub-trees of every node do not differ by more than one.

What is the time complexity of your algorithm?

C-3.10 Let D be an ordered dictionary with n items implemented by means of an AVL tree (or a Red-Black tree). Show how to implement the following operation on D in time O(log n + s), where s is the size of the iterator returned:

FindAllInRange(k1, k2):
      Return an iterator of all the elements in D with key k such that k1 ≤ k ≤ k2.