CE221 – Data Structures & Algorithms 17.11.2022
Fall 2022

Lab 2 – Binary Search Trees

Download `BinaryNode.java`**,** `BST.java` **and** `Main.java` **from Blackboard. Create a Java Project, put all downloaded java files at the same package in** `src` **folder.**

1. Construct a new **`BST`** object by using the given `insert()` method which is implemented in `BST` class for adding the values **(7, 8, 3, 1, 4, 5, 6)**. **[10 pts]**
2. Implement a **`remove(int value)`** method in `BST` class which removes the element `value` from `BST` and reorganize the BST accordingly. **[25 pts]**
3. Use `remove(value)` method to remove any number of elements of your choosing from your `BST` object. **[5 pts]**
4. Implement a **`findMin()`** method in `BST` class which finds and returns the minimum value in a BST. **[15 pts]**
5. Implement a **`findMax()`** method in `BST` class which finds and returns the maximum value in a BST. **[15 pts]**
6. Use `findMin()` and `findMax()` methods to find and print the minimum and maximum values in your `BST` object. **[5 pts]**
7. Implement a **`printTreeInorder()`** method which prints the tree by using inorder traversal. **[20 pts]**
8. Use `printTreeInorder()` method to print your second `BST` object. **[5 pts]**
9. Submit your **`BST.java`** and **`Main.java`** files through Blackboard.

Important note: Any copy from any source will result in a grade of **0**. In that case, submitting nothing at all will be more beneficial for you.

HONOR CODE:

On my honor, as an Izmir University of Economics student, I affirm that I will not give or receive any unauthorized help on this exam, and that all work will be my own. The effort in the exam belongs completely to me.