Central Washington University
College of the Sciences
Department of Computer Science

CS-302 Adv. Data Structures & File Proc. Fall 2015

Lab Practice 02

This lab aims at the creation of a class an `BST<E>`*, implementing a binary search tree. We accomplish this by extending the class that is being developed in the classroom.*

To test the ADT we are going to use `GoodStudent`*, which is almost identical to* `Student` *from Lab 01, but it must be prepared in some way.*

Reminder: as stated on the syllabus, it is *very important* that you complete the lab, within two or three days. Tutor time has been set aside to help.

You, will find the statement, source files, and data files in ... at `/home/cs-302/Labs/lab02`.

1. You will find the classes

   ```
   GoodStudent
   Person
   Date
   ```

   `GoodStudent` is almost the same as `Student` from Lab 01, however this time it will not compile. Why? Made the changes necessary (including certain methods) to make it compile.

2. Write a derived class `BST<E>` which implements a `BinarySearchTree<E>`. There is no need to provide constructors, but if you do, provide a default constructor. The source code for the binary search tree is also included.

3. In the previous lab, we wrote code for the creation of `ArrayList<E>` of students in a file. Test your `BST` class by doing the same thing with the binary search tree. Test your code with the data in `goodst1.txt`. Do you notice some unusual when displaying the results? Can you explain it?

4. By studying the output in the previous question, what is the traversal method used by the iterator?. You might want to experiment with other data.