

Central Washington University
College of the Sciences
Department of Computer Science

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

Lab Practice 6

This lab will help you to do some basic operations with the Map classes.

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. As usual, you find the source files in `/home/cs-302/Labs/lab06` . You cannot write in this directory, so please copy required files to one of your directories.

1. The file contains methods to create an array of individuals. You should be able by simple modifications to read the data in `indiv.txt` to create an array of individuals.
2. Not that `Individual` does not implement `Comparable`. Implement the interface based in the idfield called (`String ss`). This value is unique for each individual.
3. We want to create a `TreeMap` , which maps individuals to numbers for 0 to 365. The purpose of this is to assign each individual a day of the year in which, they will a telephone appointment. Think of a suitable *value* class to use.
4. To assist you, in creating the random number you may use the *RandomIntGenerator* based on an algorithm by D.E. Knuth, with the following methods:

```
public RandomIntGenerator(int l, int h)
/*
    @param l the lowest integer in the range
    @param h the highest integer in the range
*/
public int draw()
/*
    Generates a random integer in a range of integers
    @return a random integer
*/
```

After creating an object of appropriate type, say `gen`, `gen.next()` returns a random `int` in the appropriate range.

5. Create the `TreeMap` using those numbers, and the `Individual` read. Then *using methods* in `Map` (or `TreeMap`), traverse and print all entries.