

COSC 201 – Assignment #3

Fall 10

Objective: Create a program that will perform four sorts on a set of data: Comb Sort, Radix Sort, Snake Sort and the ever-popular BogoSort. You will need to do a bit of research, as these are not the sort algorithms we'll talk about in class. The set of data will be an ArrayList of Integers and you will need to get the integers from an external file (**test.txt**). During the sort, you will need to print out the ArrayList at specified intervals as noted below. You will also time each of the executions of these sorts and print out the time it took for each of these sorts. Use the timing code from earlier in the course.

Intervals:

Comb Sort – After every gap sort
Radix Sort – After every digit sort
Snake Sort – After each row/column sort
BogoSort – After each shuffle

Expectations: Your code will need to be neat, concise, well documented and above all, correct (see Testing).

Testing: You will need to provide the mechanism to bring in the **test.txt** test file. Note, that this is the name of the file I will be using. If your code requires tweaking in order to get this to work, I will count that the file IO portion of this assignment as missing. I will test your program with an empty file as well as a missing file. You should handle these error states. The file, if it exists, you can assume to have valid contents. Each file will be formatted with one number per line.

Sample Output: See output post on website along with a sample test.txt file.

Grading rubric will be given out at least a week ahead of the due date. You are required to work with a partner on this project. Self-selection ends on Friday, November 19th at 5pm. If you find a partner, please email me your group by this time or you will be randomly paired.

DUE: December 3d by 11:59pm, via Digital Dropbox.