

CSci112 Java 2

Lab 4 10 points

Sorting arrays and ArrayLists

Objectives:

- Sorting an array and an arraylist

For this lab, there is no unit testing, so you only need to create an IntelliJ project (not a Maven). You will need to copy or move the provided code to your project:

- The 4 classes provided: Lab4Driver, Group1, Group2, and Person.
- Create a sort method in both Group classes and call the Person toString method to output the data.
- Call the sort methods from the Lab4Driver class

Remember you are sorting objects, so you will need to swap an entire object and not just the ages. Complete the TODO sections in the following classes.

Group1 Class:

1. In the PrintGroup1 method, add code to iterate through the array, and using the toString method in the Person class, print the data held in the array.
2. Create an insertion sort method, that sorts the global array in the Group1 class in **descending** order by age. This method should not return anything.

Group2 Class:

1. In the PrintGroup2 method, add code to iterate through the arraylist, and using the toString method in the Person class, print the data held in the arraylist.
2. Create a selection sort method, that sorts the global arraylist in the Group2 class in **ascending** order by age. You will need to use the .set (called replacing an item in the book) ArrayList method to sort the data.

In the Driver's main method:

1. Call the Insertion sort method for the group1 variable
2. Call the selection sort method for the group2 variable

Be sure to have the TA grade your work and submit your work to Blackboard or you will not receive a grade.