Homework 8

You may discuss any of the assignments with your classmates and tutors (or anyone else) but all work for all assignments must be entirely your own. Any sharing or copying of assignments will be considered cheating. If you get significant help from anyone, you should acknowledge it in your submission.

You should not use any features of Java that we did not cover in class.

Amazon Prime Video: Part 2

Amazon liked the work you did so much, they want you to make a few more modifications.

Movie

Implement the Comparable interfaces on your Movie class.

- compareTo (Movie) Implement compareTo to compare the years. If two movies were made in the same year, sort them by rating.

Inventory

Update the inventory to use Collections.sort to keep the ArrayList sorted in order. Moreover, on every add or remove call, use Collections.sort to sort the Movies.

TestInventory TestInventory should work as before, but now we should see that every time its contents are printed, they are in sorted order by year and rating.

Grading

Does the program compile? If not, you will lose all the points for that problem.

Is the program properly documented? (worth ~20% of each problem)

Proper documentation includes:

- preamble with the name of the author, date of creation and brief description of the program;
- appropriately chosen variable names, i.e., descriptive names;
- comments inside the code describing steps needed to be taken to accomplish the goal of the program;
- appropriate formatting, indentation and use of white space to make the code readable.

Remember that the code is read by humans and it should be easy to read for people who were not involved in its development.

Is the program well developed? (worth ~40% of each problem) Make sure you create variables of appropriate types, use control statements (conditionals and loops) that are appropriate for the task, accomplish your task in a well designed and simple way (not a convoluted algorithm that happens to produce the correct output for some unknown reason).

Is the program correct? (worth ~40% of each problem), Make sure that your program produces valid results that follow the specification of the problem every time it is run. At this point you can assume a “well behaved user” who enters the type of data that you request. If the program is not completely correct, you get credit proportional to how well it is developed and how close you got it to the completely correct code.
What and how to submit?

You should submit all source code files combined into a single zip file to NYU Classes. Do not submit all the files that Eclipse creates, just the source code files that have .java extensions.

Questions

Post any questions you have regarding this assignment to Piazza.