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When you are satisfied that your program is correct, write a brief analysis document (.pdf format only). The analysis document is 20% of your Assignment 2 grade. Ensure that your analysis document addresses the following.

1. This assignment is traditionally done with Pair Programming. Were there times you wish you had a partner to bounce ideas off of? We will ask you to compare your experiences with these first, "single" to assignments to the paired assignments later on in the semester. Please use your answer here for reference later.

I felt this assignment was fairly well laid out, so that it wasn't too difficult to complete. There were a few times when I felt Java was acting in a way I didn't understand that it might have been helpful to have an extra set of eyes working through the debugger with me. I felt comfortable with the code that we were required to write though, so as far as coding went, I did feel fairly comfortable on my own.

2. Java's built-in classes Comparable and Comparator are both interfaces for doing comparisons among objects. What is the difference in the two interfaces? Give a situation when it is best to use each. Is it possible to change the extra features in LibraryGeneric such that the Comparable interface is used instead of Comparator? Why or why not?

From what I understand, Comparable is more for comparing two objects that have a more natural ordering, say two strings, but is not as adept at ordering things in a sort method like we used. Because Comparator returns a positive, negative or 0, it makes it extremely simple to sort an entire list of items quickly! Which is its main strength.

I do think that the code could be re-written to implement comparable instead of comparator, but it would be inefficient because Comparator does the work so naturally.

3. Comment about the efficiency of your programming time. Did you utilize the time spent on this assignment effectively? How might it be improved?

I feel like overall my time was well spent. I could have improved my efficiency by reading through the entire assignment first. I have a tendency to do it part by part, and I did have to change a few things in the first parts to make the second parts function as intended. This could have been avoided if I had read the whole assignment first.

4. Reiterate why writing Generic code is important for this course. Phrase your answer in terms of Data Structures and Algorithms.

Writing Generic code is important for this course because if we had to write an algorithm for each class that could ever be created, we would never finish. Strings, Ints, Doubles, etc. not to mention all the classes that we could want to store in some of our designed Data Structures. By using generic programming we still have to adapt our code for each class, but that is done in a simple and efficient way (like writing a new comparator, or access methods for data) and leaves the majority of our code intact. This reduces bugs and testing time, as we already know our underlying data structure is sound.

5. How many hours did you spend on this assignment?

Less than 5 Hours.

Upload your document (as a .pdf only!) to the Assignment 2 page by 11:59pm on September 7th.