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Assignment 02: Generic Books

Analysis

1. While working on this assignment I felt that working with a partner would've been the most useful when I was writing my tests for the Library and LibraryGeneric classes. For this assignment I struggled to determine how to expand the tests which were supplied because they seemed to pretty thoroughly test most cases which immediately sprung to my mind. I think a partner would've been very helpful to me here because a partner could possibly have thought of a something which required a test which I did not. For the rest of the assignment I didn't truly feel a partner would've been helpful because for me it was fairly straight forward to assemble the library classes themselves.
2. Comparable and comparator are actually two very different classes. Comparable is an interface which is usually added to an object that it would be beneficial to directly include a means to compare objects of its type within the code for the object itself. The comparator interface is much more useful for designing a means to compare objects from outside of the object. As a result comparators are much more useful if it is necessary to be able to design multiple means of comparing objects. For example, in this assignment it was more useful to use a comparator to compare the library books because it was necessary to be able to sort library books 3 different ways; by author, by isbn, and by due date. Comparable on the other hand is quite helpful if it is only necessary to compare two things by one standard because it assures that only that standard will be used to compare them.
3. This assignment highlighted many ways in which I was using my time programming inefficiently because I had forgotten some of my practices which helped me be efficient in the past. Last year I would often draw a plot of how I was going to code something on paper before actually diving into the code. That was an excellent practice because it forced me to analyze what each component of my code would do in advance. However, for this assignment I did not plan my code in advance, which lead to me creating several methods for sorting which had already been supplied to me. As a result, I wasted a lot of time programming which I should not have. In the future I intend to plan my code out more carefully to hopefully avoid wasting this time.
4. Generic code is incredibly important because it drastically increases the number of applications for a piece of code. It is especially important when considering algorithms and data structures because it allows a programmer to create a single algorithm or data structure and apply it to different scenarios as they see fit.
5. I spent somewhere around 18 hours on this assignment. This is likely due to how inefficiently I spent my time coding.