Spring 2022: CS 203 - Object-Oriented Programming

Lab9

Objectives:

- Learn to write test cases with Junit
- Learn to debug code

Problem: Sorting Book Objects

Download the provided zipped folder from Canvas (`src.zip`). The unfinished source code java files and test cases are in the provided folder. To finish this lab, you must fix these files by debugging them. The Book class models a book. A Book has a unique id, title, and author. The BookStore class stores book objects in a list, internally stored as an ArrayList. Also, the following methods are implemented for the BookStore class.

1. **addBook(Book b):** stores the book in the book list.
2. **getBookSortedByAuthor():** returns a book list sorted by author name descending alphabetically.
3. **getBooksSortedByTitle():** returns a book listed sorted by title descending alphabetically.
4. **getBooks():** returns the current book list.
5. **deleteBook(Book b5):** removes the given book from the book list.
6. **countBookWithTitle(String title):** iterates through the book list counting the number of books with the given title. Returns the count of books with the same title.

Write test cases to test the implementation. The test case method stubs have been created. Fill out the method stubs. After filling in the test case method stubs, run BookStoreTest to test the BookStore.java code. Find and fix bugs in the BookStore.java code by using the debugger on the test case method stubs.

Deliverables: Fixed/Completed JAVA files

Grade: You have 6 methods above; you will develop test cases for each method.

Test cases for each method = 20 points (Total = 120/100 points)

Good Luck!