

COMP 1409 Lab 8-b (4 points)

Take-home lab

For this lab you will write a class called **Book**. Here are the relevant attributes:

- title
- author
- yearPublished
- bookPriceInCAD

Provide a default constructor, and a second constructor that takes parameters to initialize all the instance variables. Both constructors call the mutator (set) methods to initialize the instance variables.

Provide an accessor (get) and mutator (set) for each instance variable. The mutators all validate their parameters appropriately and use them only if valid.

Provide a method to display the book's information on the screen.

Create another class called **BookStore**. Here are the relevant attributes:

- business name
- array list of Book

Provide two constructors; the default constructor sets the business name to "Book Store". The non-default constructor takes a parameter to initialize the business name.

Provide an accessor (get) and mutator (set) for each instance variable.

Provide a method that adds a new book to the collection if the passed parameter is not null. Here is the method signature: **public void addBook(Book book)** // to use this method, first create a Book object to be added. Click on the object when invoking the method.

Provide a method that takes an int parameter and displays on the screen the details of the book stored at that index position. This method must ensure that the parameter is a valid index position and display an error message if it is not.

Provide a method that takes a String parameter (the book title) and searches the collection. If the book is in the collection the method displays on the screen the details of that book. If the book is not in the collection the method will display a message stating that the book was not found. To compare strings use the equalsIgnoreCase() method of the String class.

Provide a method that uses for-each loop to display the details of all the books in the collection.

Upload the lab to the appropriate D2L dropbox before the due time. A suggested solution will be discussed in class and labs not already in the dropbox will not receive any points.