Programming 2- 2nd semester 1437-1438 COURSE PROJECT: PHASE 2

Execution time: 3 weeks

In this phase you will continue the work in the virtual book store program.

The book store keeps a book list. The book list should be implemented using an array in Java. You will add a new data field, totalNumOfBooks, which represents the total number of books in the bookstore. totalNumOfBooks is incremented every time a book is added.

You have to implement the following tasks:

- 1. Create an array named booklist of length 10. Booklist contains objects of the class Book.
- 2. Add the totalNumOfBooks data field to the class Book
- 3. Change the signature of the methods responsible for realizing the menu options so that the book list is passed to the methods. I.e., addBook(Book book) will be addBook(Book[] bookList) and so on.
- 4. The addBook (Book[] bookList) method checks if the booklist is full before adding a new book to it. In case the booklist array is full, it
 - a. copies the contents of the array to a new temp array
 - b. creates a new array with double the current length
 - c. copies back temp to the new booklist array
- 5. You will add a new option to the menu "Display all books", which uses System.out.printf() to display the information of all the books in the book store in a table format.
- 6. Display error messages to the user in case of entering wrong input.

Useful tips:

- 1. Read all of the required input as string objects using nextLine(); avoid using nextInt(), nextFloat().
- 2. Remember! The id data field is updated automatically (is not set by the user). It represents the serial number of the book in the store. E.g., the id of the first book added is 1, second book is 2, third book is 3, ...etc.