JAVA PROGRAMMING LANGUAGE
Assignment 9

1.   Suppose that you have been assigned the task of computerizing the card catalog system for a library. As a first step, your supervisor has asked you to develop a *Book* class capable of storing the following information for each book.

- The title
- A list of authors
- The Library of Congress catalog number
- A list of subject headings
- The publisher
- The year of publication
- Whether the book is circulating or non-circulating

Include the variables and methods that would be necessary to keep all the information required for this prototype database.

Create a Library class that contains an *ArrayList* of books. Include a following methods:
- *addBook(Book b)* – Add a book to the database
- *printAllBooks()* – Print all books in the database
- *SearchBySubject(String s)* -- that takes as parameter a search string and returns a list of books that contain the string. For each book in the library that lists the search string as one of its subject headings or title words, the S*earchBySubject* should display the title, the name of the author, and the Library of Congress catalog number of the book.