

In Lab Task
Object Oriented Programming
Section A

Maximum Time allowed: 60 minutes

Date: 30-9-2022

A book store manages books inventory manually, and the owner wants to digitalize the business. Store admin adds new books to store inventory when new books arrive. For this purpose, the administrator stores the book ISBN, title, author, price, and quantity. When the storekeeper sells a book, the revenue is added to store available cash. The author is an entity (class) with the first name, last name and email address.

Identify classes and create a UML diagram on the page. Then create a java application with the following functionalities.

The required system has the following menu options:

For stock entry of a book store, keep providing all four information books ISBN, title, author price and quantity. For example, assume the maximum capacity of the store is 500 books.

1. The storekeeper can search books from the stock to facilitate customers using the book title. When the *book* is searched successful system should return the rack number (index)
2. The storekeeper can sell a book from the shop. Before making a sale, one should search books first by book title and then make a sale. After a sale, quantity should be decremented, and revenue (a variable to store cash amount) should be increased by price multiplied by quantity. The system should prompt a message “Out of stock” if the copies required are more than the available quantity.
3. The system can print a list of books displaying all book information.
4. The system can print the total revenue available.
5. The system should terminate when the user selects the exit option.

Note: Consider object-oriented concepts while making this application. Use encapsulation and composition wherever it is required. Follow proper naming conventions, code blocks indentation and use meaning full strings for identifiers.