

SDA LAB TASK

Group Members

Name : Saad Humayun

Reg No : Fa22-bse-012

Name : Tahir Ali

Reg No : Fa22-bse-050

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1. Choose a case study of your choice and then describe the intended system briefly focusing on its major features/functions.

Bookstore Case Study

The Bookstore System is an online platform where users can browse, purchase books, and for admins, manage inventory. It serves two main user groups: Customers and Admins, providing each with distinct features tailored to their needs.

Key Features:

1. User Registration & Login:

Users (customers and admins) create accounts to access personalized features like order tracking and cart management.

2. Book Search & Browsing:

Users can search for books by title, author, genre, or ISBN. The system also offers book categories with detailed information on each item.

3. Shopping Cart & Checkout:

Customers can add books to a shopping cart, review it, and proceed to checkout by providing shipping information and payment details.

4. Secure Payment Processing:

Payments are handled securely via integrated payment gateways like credit cards or PayPal.

5. Order Management:

Customers can view and track past orders, while admins manage and update order statuses (e.g., processed, shipped).

6. Inventory Management:

Admins can add, update, or remove books from the inventory, adjusting stock levels and prices as necessary.

7. Book Reviews & Ratings:

Customers can leave feedback on books they've purchased, which helps future buyers.

8. Recommendations:

The system suggests books to customers based on their past purchases or browsing history.

9. Notifications:

Users receive updates about order status, promotions, or when a book they want becomes available.

10. System Goal:

The system aims to offer an easy-to-use platform for book buyers and provide tools for admins to manage the store effectively. It focuses on secure payments, real-time inventory updates, and a smooth customer experience.

2. Create a USE CASE diagram for your case study on a page with your names and registration numbers.

Name: Saad Humayun

Registration Number: Fa22-bse-012

Name : Tahir Ali

Registration Number: Fa22-bse-050

UseCase Diagram for BookStore:



3. Every group member will have to select a distinct use case and write its Name, Pre-Conditions and Main Success Scenarios.

Selected Use Case: Search Book

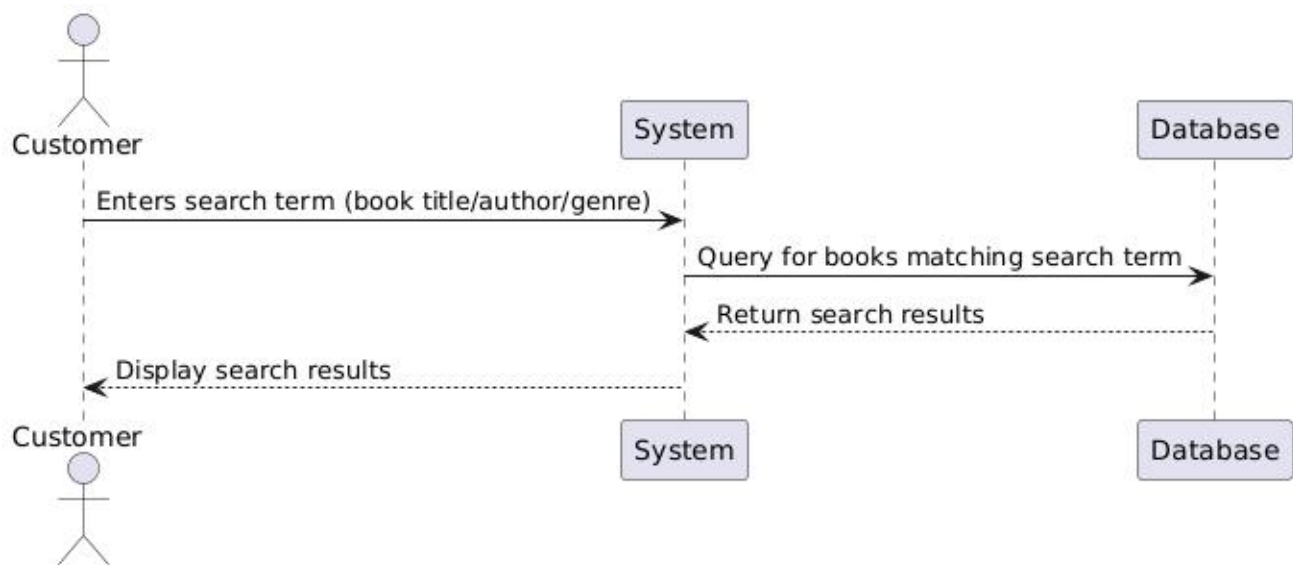
Pre-Conditions:

1. The user must be on the bookstore website or app.
2. The system must have an active catalog of books available for search.

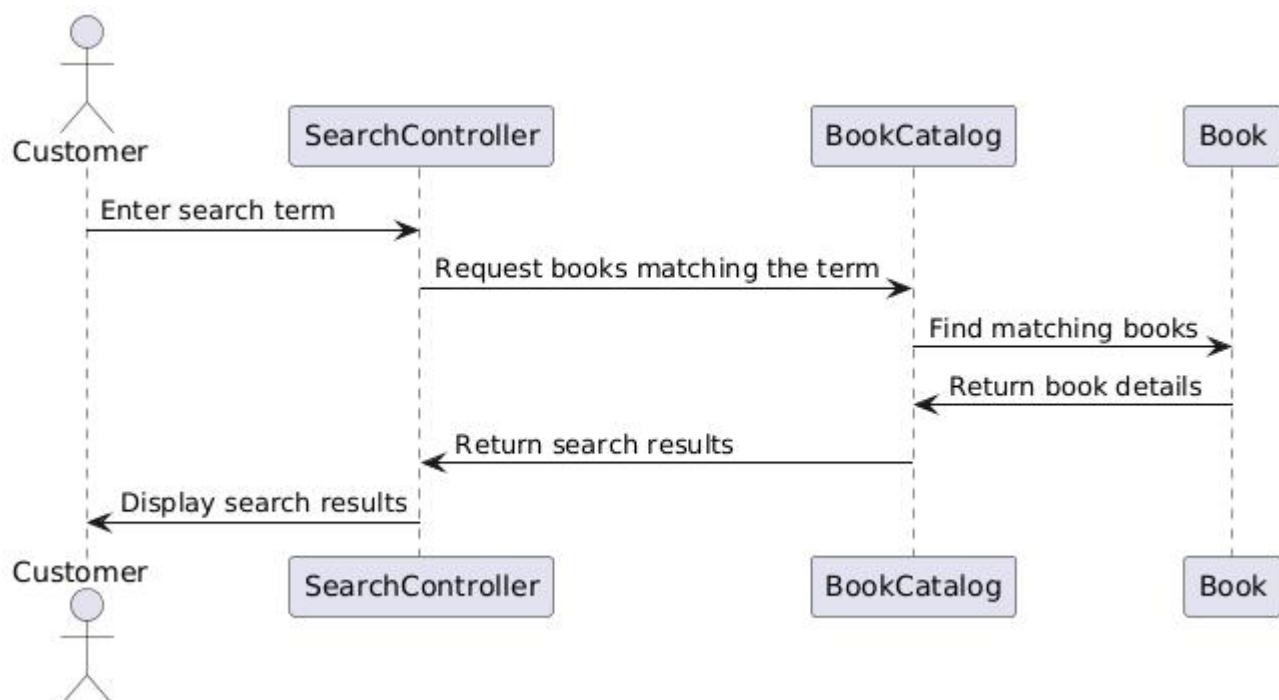
Main Success Scenarios:

1. The user enters a search term (book title, author, or genre) in the search bar.
 2. The system processes the search query.
 3. The system displays a list of books that match the search term.
 4. The user can view book details from the search results.
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4. Create SSD for the use case in step-3



5. Select one system event and design it via COMMUNICAITON DIAGRAM on Page. Make sure to mention the principles you applied via Note in the diagram.



GRASP Principles Applied:

Information Expert: The BookCatalog is responsible for knowing how to find books in the system since it contains the necessary information about the books.

Controller: The SearchController acts as a controller, handling the search request and delegating the task of retrieving books to the BookCatalog.

5. Create a class diagram for step-5 on a Page.

