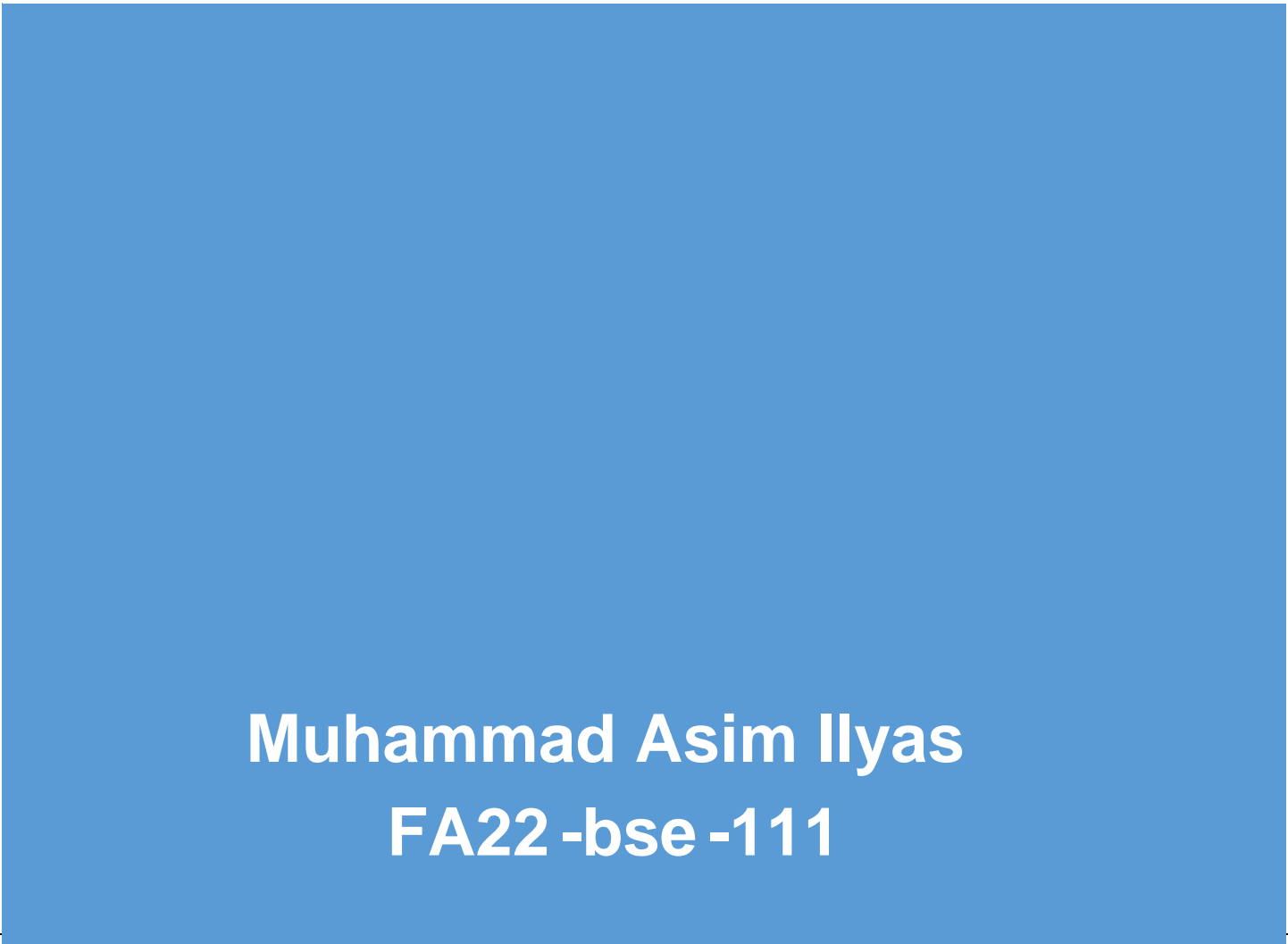


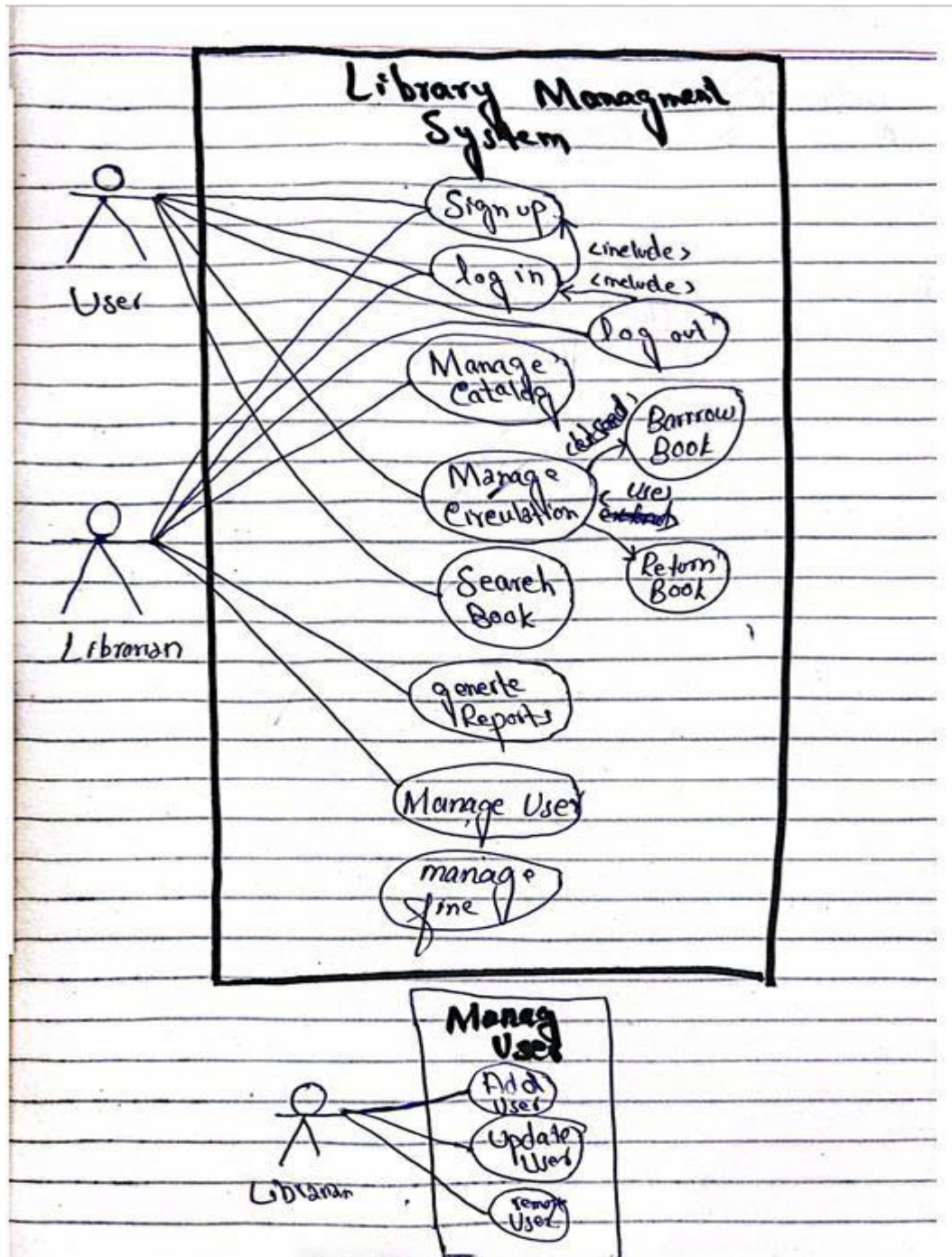


LIBRARY MANAGEMENT SYSTEM



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Use Case Diagram



Use Case: Search Book

Use Case Name: Search Book

Stakeholders:

- **Library Member:** Wants to find books by title or author.
- **Librarian:** Oversees the functionality and may assist members in searching for books.

Preconditions:

- The user must be logged into the library management system.
- The system must have at least one book available in the database.

Postconditions:

- The system displays a list of books matching the search criteria.
- The user can see details (title, author, borrow status) of each book in the search results.

Main Success Scenario (Basic Flow):

1. The user navigates to the "Search Book" interface.
2. The user enters a keyword (title or author) in the search field.
3. The user submits the search request (clicks the "Search" button).
4. The system processes the request and searches the database for matching books.
5. The system displays the search results, showing titles and authors of the matched books.
6. The user reviews the results and can choose to borrow a book.

Extensions/Exception Scenarios:

- **Invalid Input:**
 - If the user enters an invalid search term (e.g., special characters), the system displays an error message and prompts the user to enter a valid search term.
- **No Results Found:**
 - If no books match the search criteria, the system displays a message indicating no books were found with the entered keyword.

Alternative Flows:

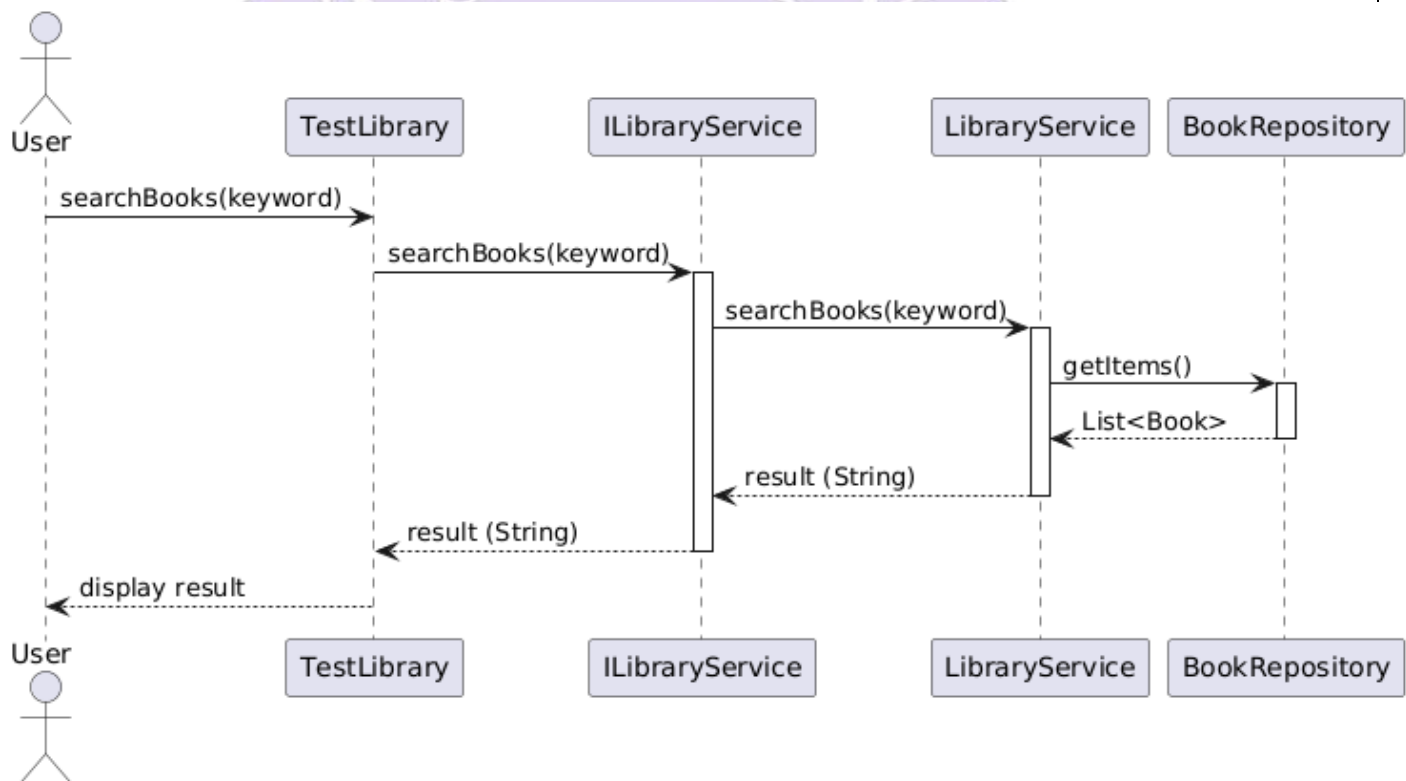
- **Partial Search:**
 - The user enters a partial title or author name. The system uses a substring search to find books containing the input and displays matching results.

Special Requirements:

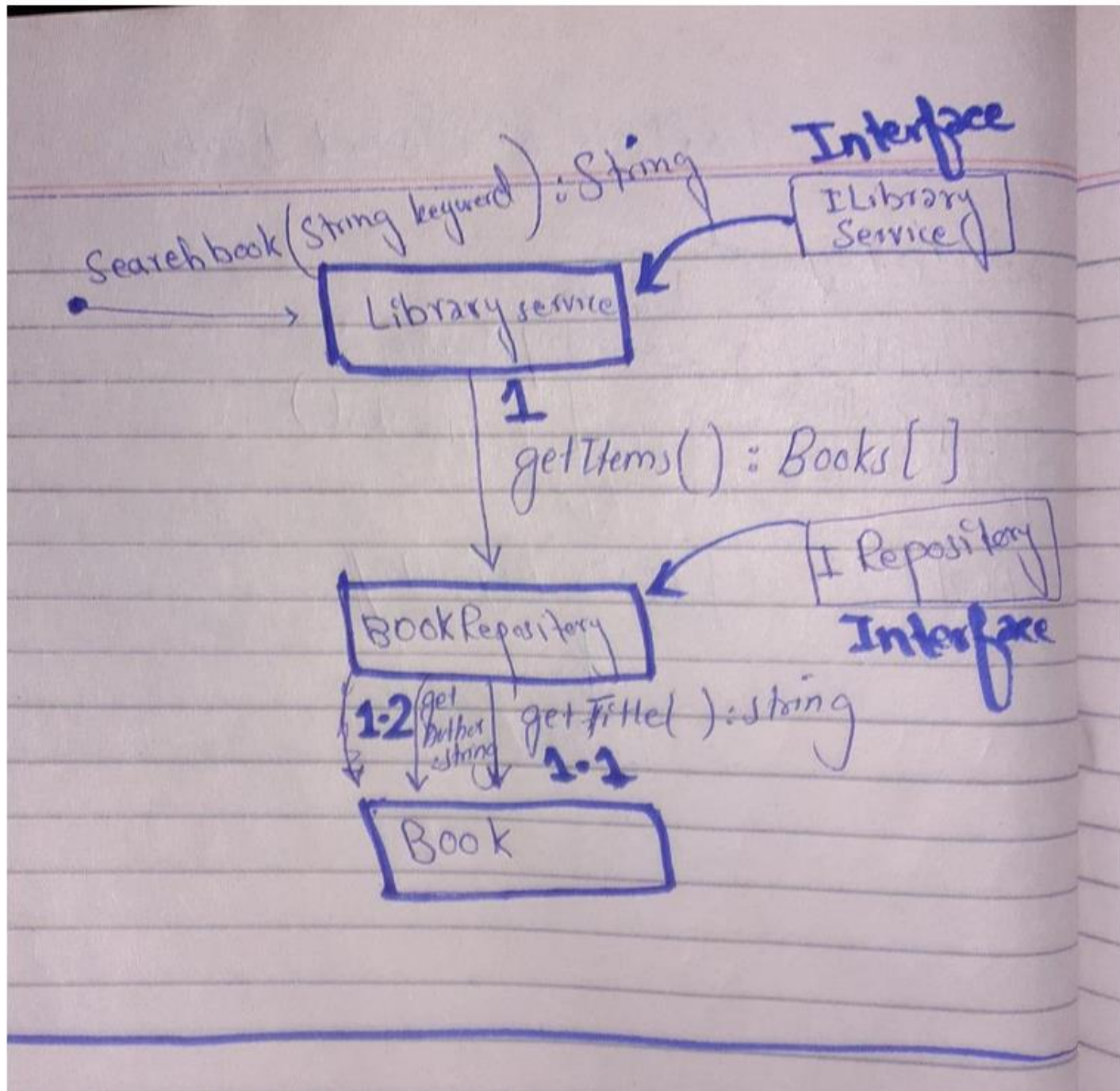
- The search functionality should be case-insensitive (e.g., "harry potter" should return the same results as "Harry Potter").
- The system should have a response time of less than 2 seconds for returning search results.
- The user interface should be user-friendly, providing suggestions as the user types in the search box.

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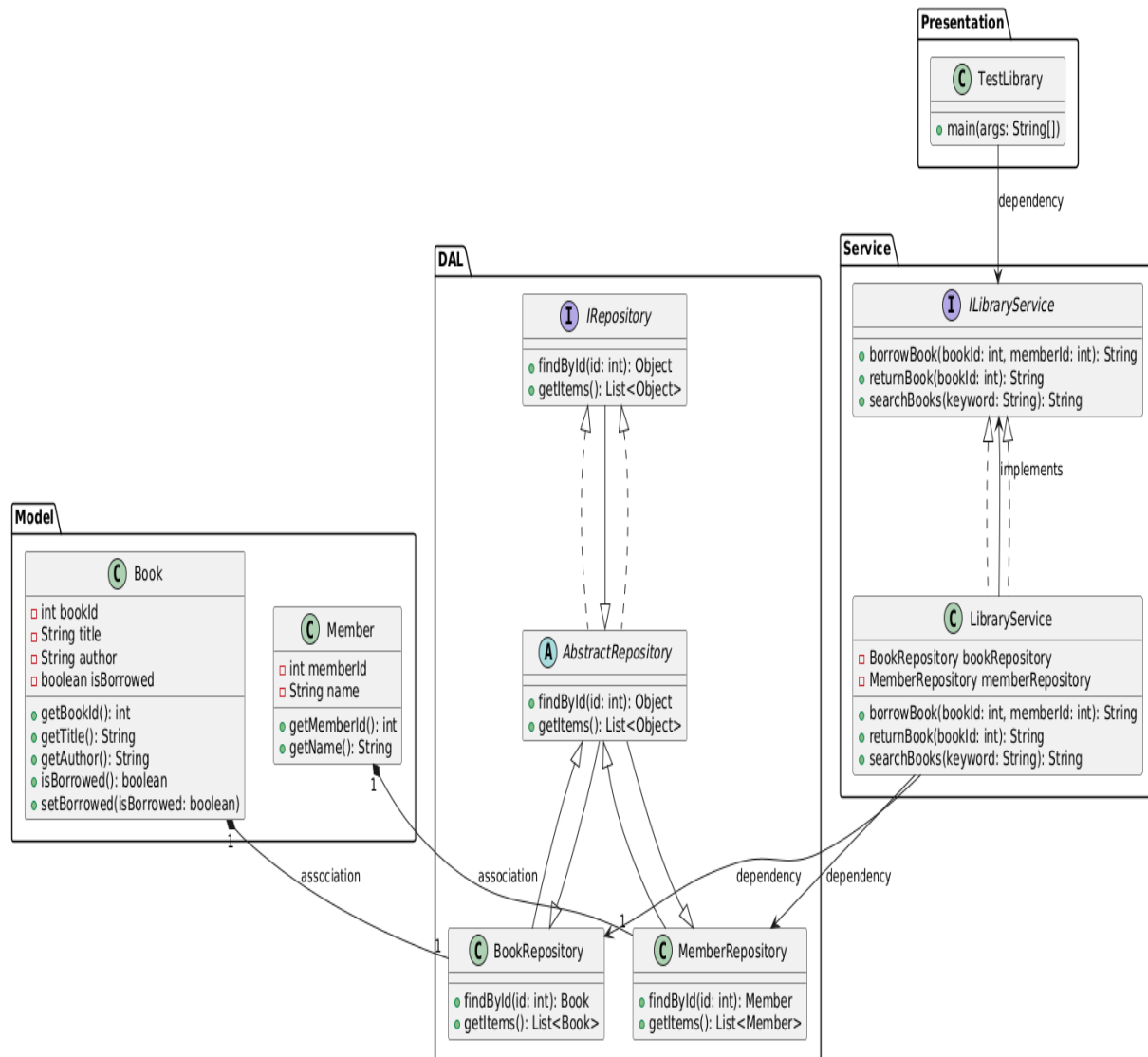
System sequence Diagramme:



Cumunication Diagraame:



Class diagramme:



Package Diagramme:

