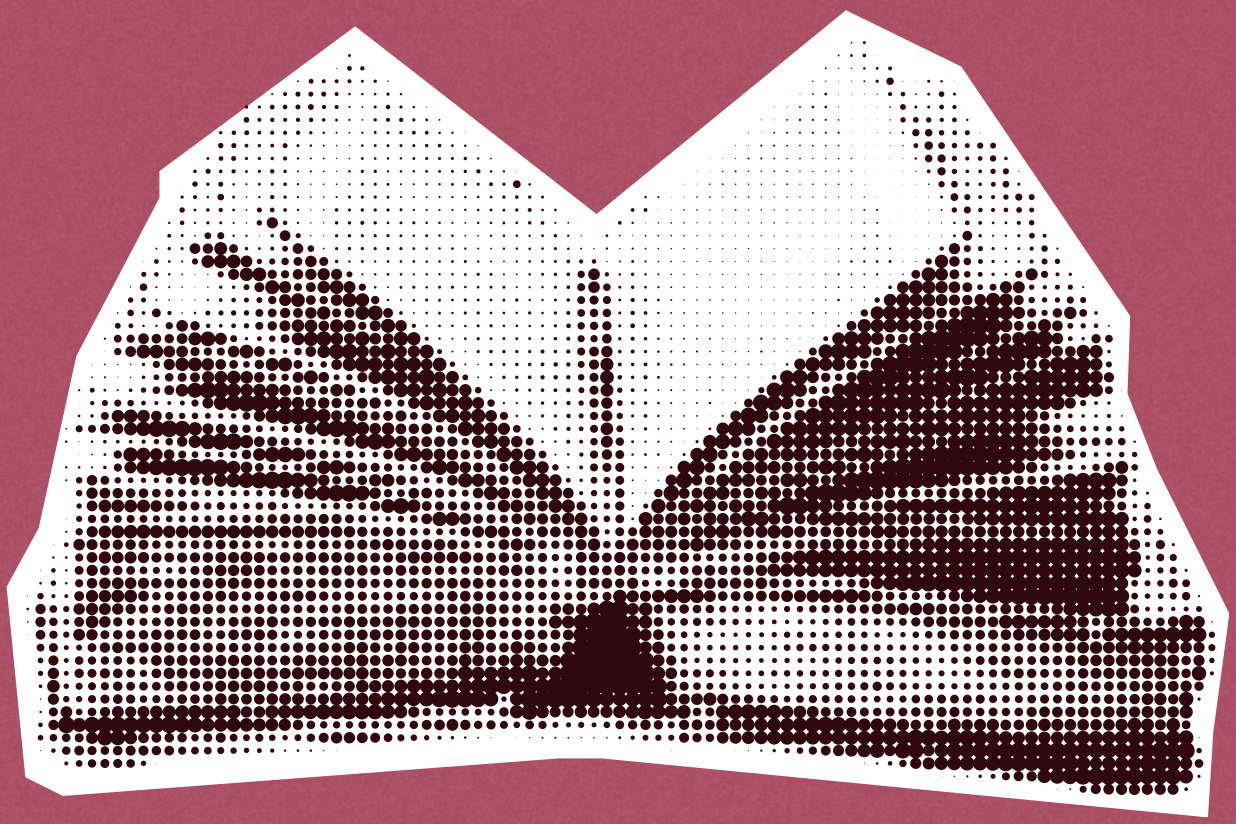
BOOKERY

Discover, organize, and share your love for books with Bookery– the ultimate app for every book lover.



جامعة جدة
University of Jeddah

Group Members

Jumana Al-asmi

2310465

Aliyh Al-rwithi

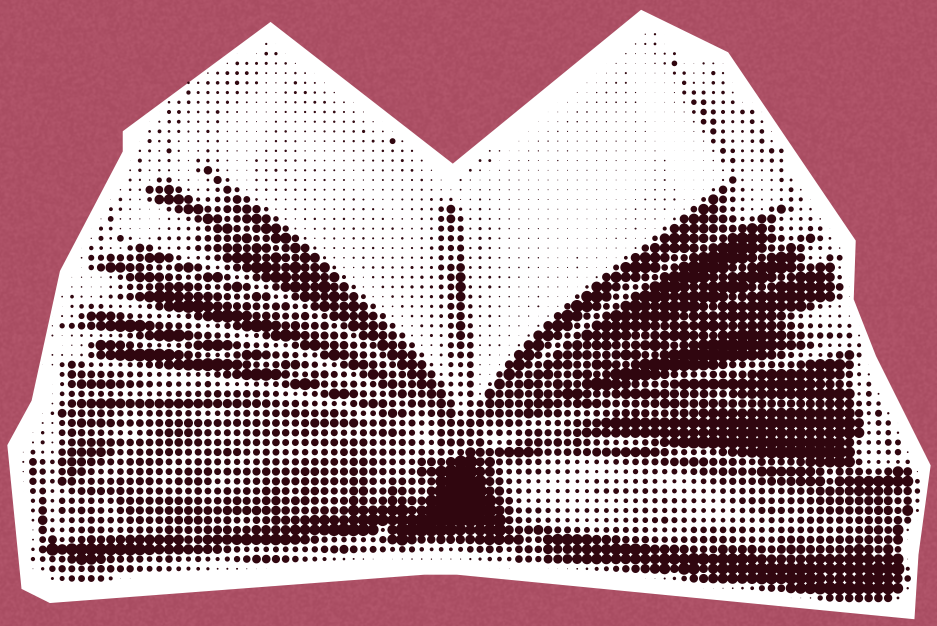
2310488

Ghadeer Al-saeedi

2310693

Mariam Anbar

2310434



Sprint 0

- **Description:**

The app is designed to provide a user-friendly platform for book enthusiasts to easily manage and organize their personal libraries. It focuses on helping users track their reading journey, from adding new books to marking progress and prioritizing favorites. The app enhances book discovery through tailored recommendations. It offers a seamless experience for book lovers looking to explore, enjoy, and engage with their collections in a more structured way.

- **Problem Definition:**

Managing a personal book collection can be overwhelming, especially when dealing with a large number of books. Users often struggle to keep track of their reading progress, find specific books easily, and organize their library in a way that enhances the reading experience. Additionally, discovering new books can be challenging. There is also a lack of seamless platforms where users can buy and sell books within a community. These challenges create a fragmented reading and book-sharing experience for users, limiting their ability to enjoy and organize their collections effectively.

- **Proposed Solution:**

The app offers a comprehensive solution to streamline personal book management and enhance the reading experience. Users can easily add books to their collection, track their progress with status markers (e.g., “Reading”, “Completed”), and prioritize their favorite books for quick access. The advanced search function allows users to find books based on specific criteria, such as title, author, genre, or publication year, and offers personalized recommendations tailored to their interests. The app also includes a Book Marketplace, enabling users to buy and sell books. Additionally, users can rate books on a five-star scale, helping others make informed decisions. This all-in-one platform helps users organize their library, discover new books, and engage with the book community.

- **Scope:**

The app will provide a platform for managing personal book collections, including features such as:
Book Management: Add, track, and organize books, with progress tracking and favorites prioritization.
Advanced Search: Search books by title, author, genre, and get personalized recommendations.
Marketplace: Buy and sell books with details like price and condition.
External Integration: Fetch book details from external databases.
The app will not include features like book publishing or audiobook integration.

- **Users:**

The app serves the following user groups:

1. **Book Enthusiasts:** Individuals who enjoy reading and want an organized way to manage their personal book collection.
2. **Buyers and Sellers:** Those interested in buying or selling books, connecting with other users in the book marketplace.
3. **Bookstores:** Small-scale businesses looking to manage their inventories and offer books for sale in the marketplace.

- **Tools:**

1. **Design Tool:** Lucidchart
2. **Communication Tool:** Zoom
3. **Repository Tool:** Github - https://github.com/jumAsm/Bookery.git
4. **Agile Planning Tool:** Jira
5. **Development Tool:** Android Studio

- **Functional And Non-Functional Requirements:**

Priority:

- **Pink** - high
- **Green** - medium
- **Blue** - low

- **Functional Requirements:**

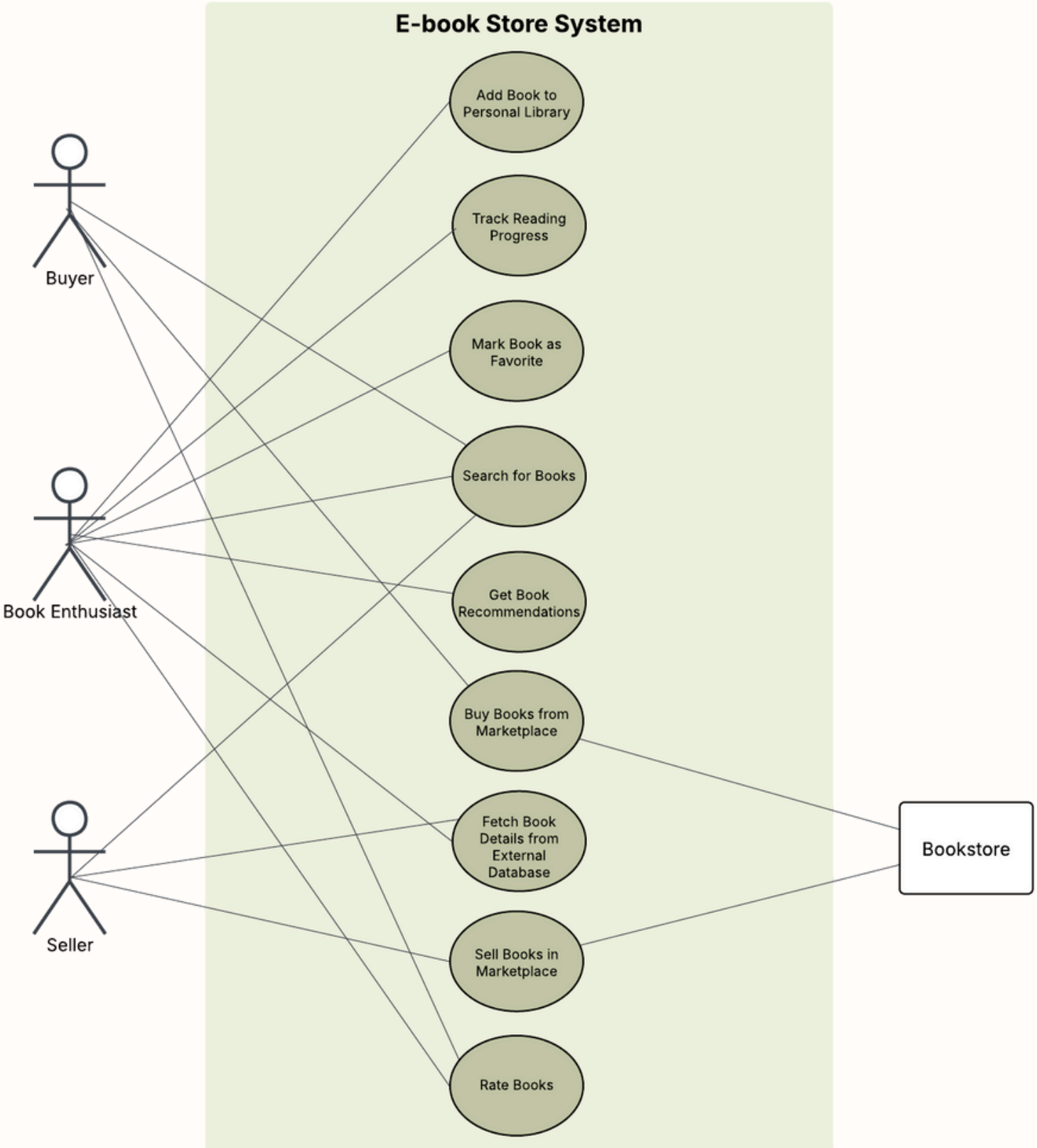
Req ID	Requirement Definition
FR-01	The system must allow users to add new books to their personal library.
FR-02	The system can enable users to mark the reading progress of books with statuses such as “Reading” or “Completed”.
FR-03	The system can allow users to mark books as favorites for quick access.
FR-04	The system must allow users to search books using multiple criteria: title, author, genre, and publication year.
FR-05	The system shall provide personalized book recommendations based on user preferences and reading history.
FR-06	The system can allow users to rate books using a star rating system (1 to 5 stars).

Req ID	Requirement Definition
FR-07	The system must enable buying and selling of books with details like price and condition, connecting users in a community.
FR-08	The system shall automatically fetch book details from external databases.

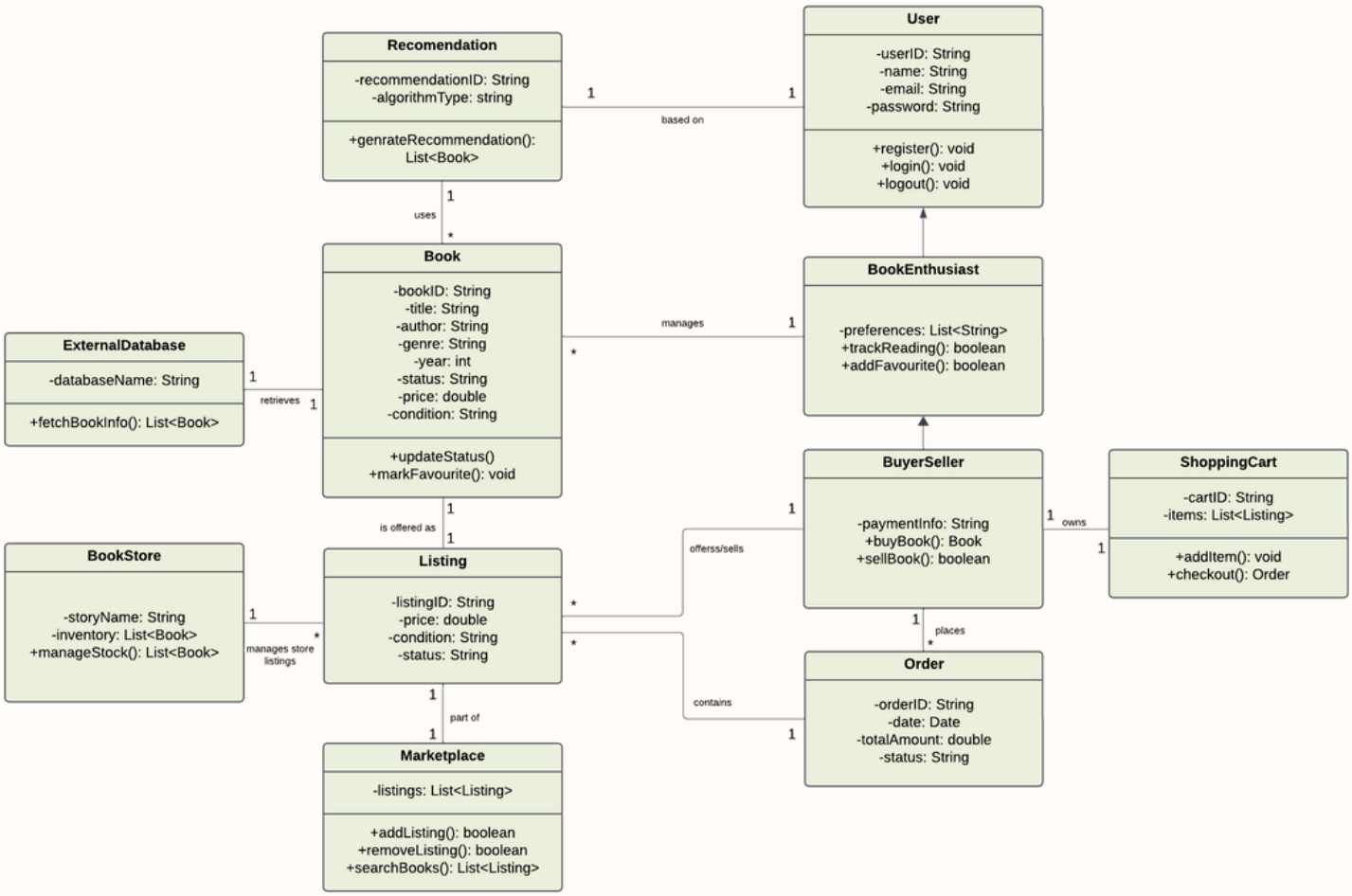
- **Non-Functional Requirements:**

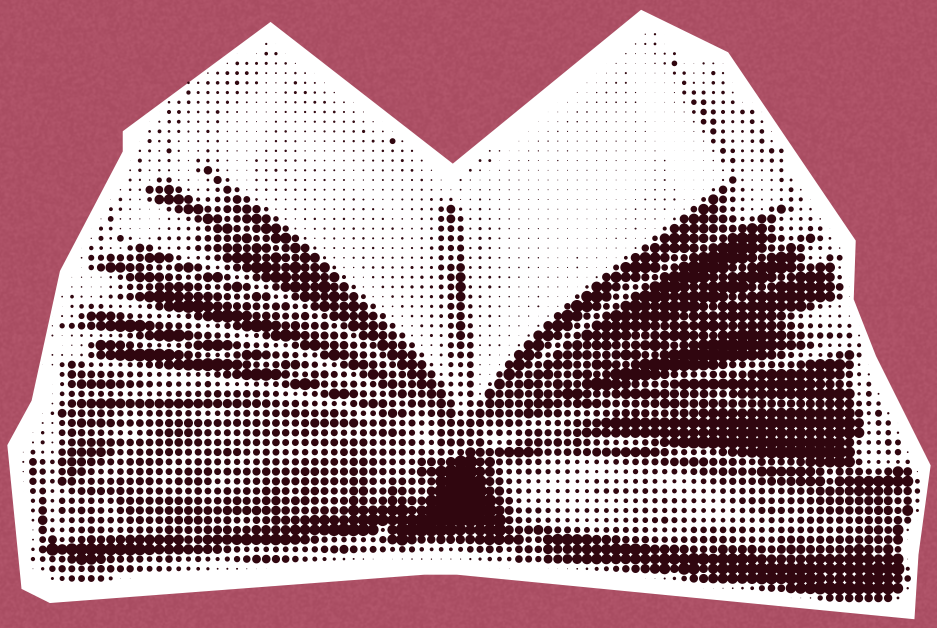
Req ID	Requirement Definition
NFR-01	The system must provide an easy-to-use interface for all users.
NFR-02	The system must ensure fast response when searching or loading data.
NFR-03	The system must protect user data and transactions in the marketplace.
NFR-04	The system shall support smartphones and tablets.
NFR-05	The system shall facilitate app updates and bug fixes for easy maintenance.
NFR-06	The system shall ensure the application is accessible to most users at all times.

- **Use case diagram:**



- **Class Diagram:**





Sprint 1

جامعة جدة
University of Jeddah

Sprint 1

Requirement Specification:

- **Components Name:**

Add new book for sale and Buy a book.

- **Sprint 1 Stories:**

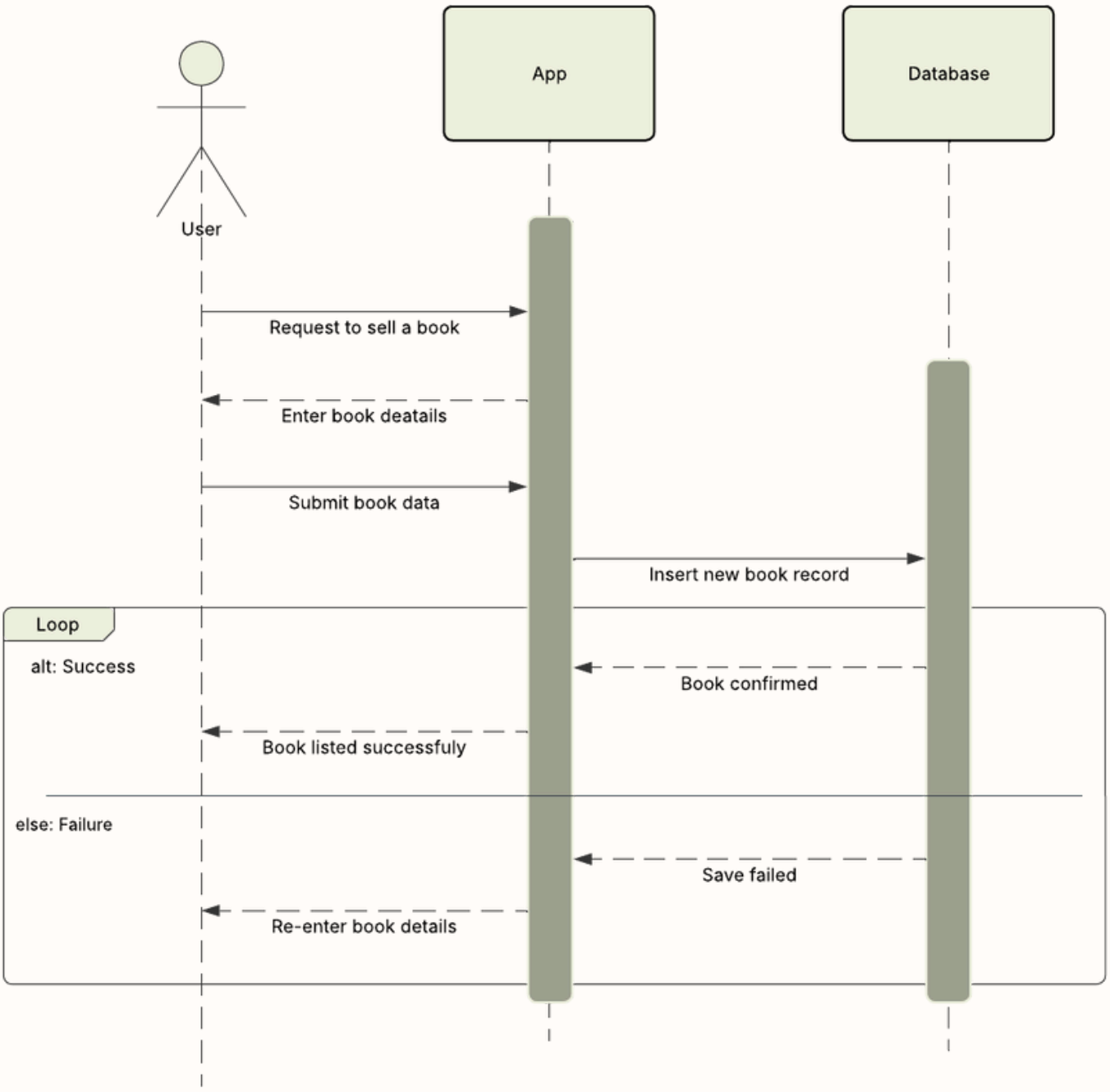
1- Component Name: Add new book for sell.
Story Sequence No: 01
Story Short Description: User can add a book to sell it.
Story Long Description: User will be able to add a book for sale by providing all details (title, author, price, category, etc..) and uploading the cover image and the digital book file. The system shall validate and save this comprehensive listing to the database, ensuring its immediate availability on the Book Market.

2- Component Name: Buy a book.
Story Sequence No: 02
Story Short Description: User can buy a book from market.
Story Long Description: User will be able to add a book to their Basket from the Book Details page. They will then be able to review the total cost of items in the dedicated Basket Page. Finally, the system shall allow users to initiate the Checkout process to complete the purchase.

Design

- **Sequence Diagram #01:**

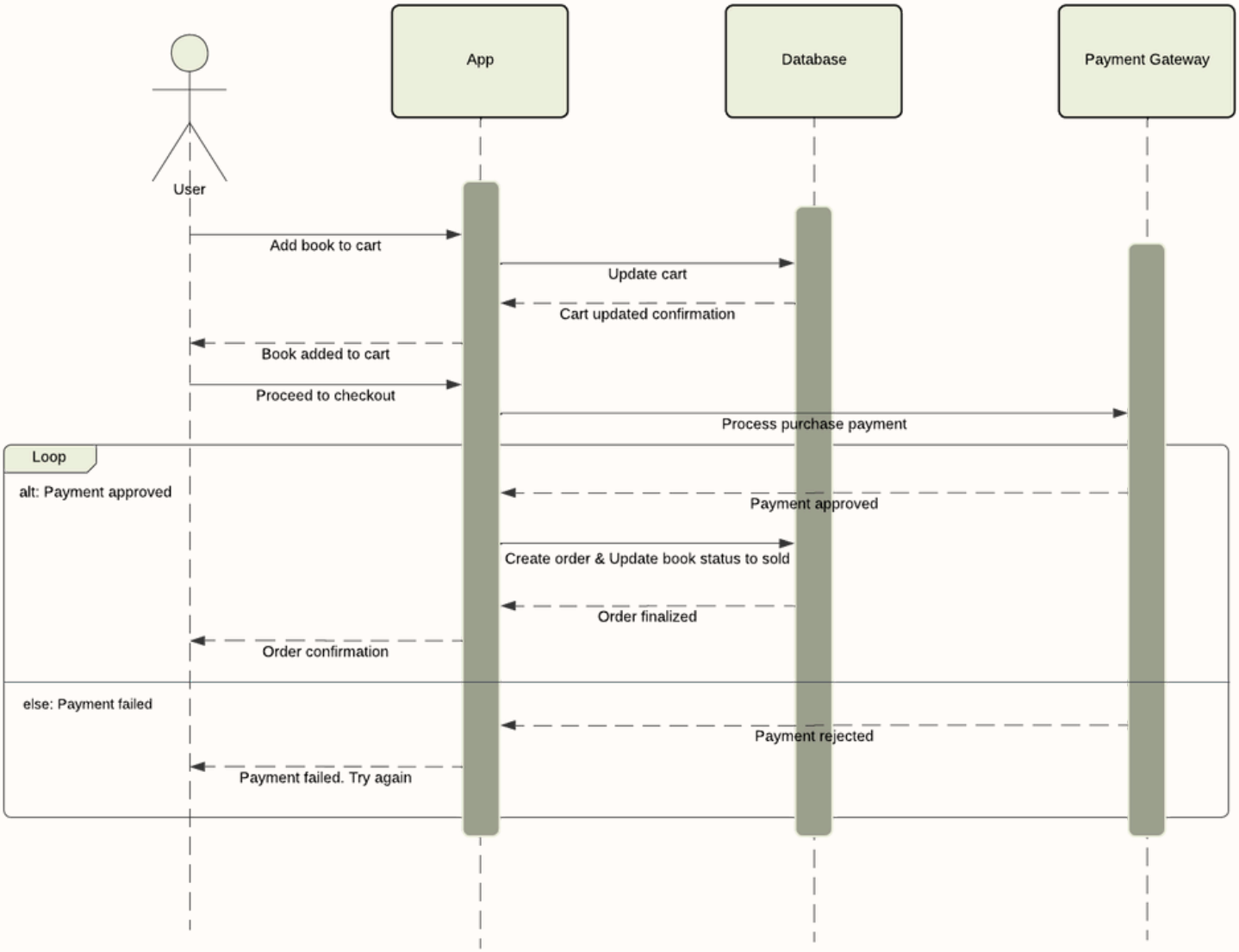
Add new book for sale.



Design

- **Sequence Diagram #02:**

Buy a book.



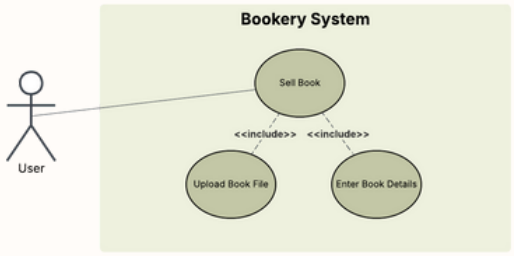
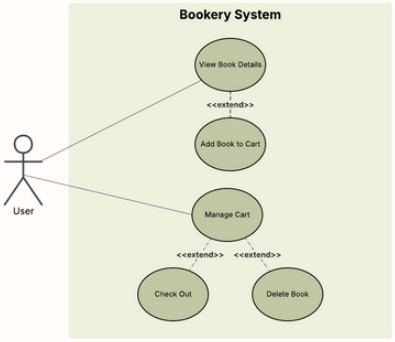
Meeting Details

Sprint Meeting(s)

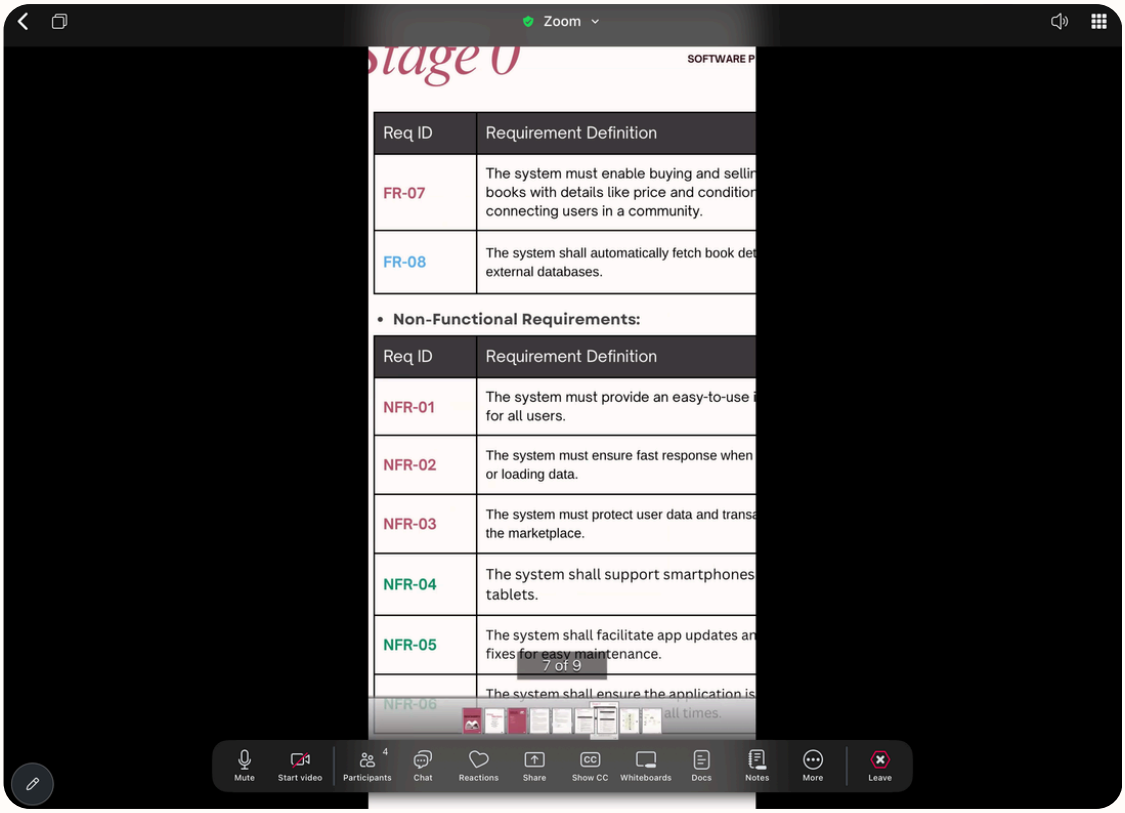
Project Name: Bookery
Project Members:
Jumana Al-asmi - Aliyh Al-rwithi - Ghadeer Al-saeedi - Mariam Anbr

Sprint #1 Stand up Meeting - [02/10/2025]

Sprint Duration: 2 Weeks.
Scrum Master: Jumana Al-asmi
Client: Ms. Malak Alharbi
Pair Programmers: Jumana Al-asmi and Aliyh Al-rwithi
Stories:

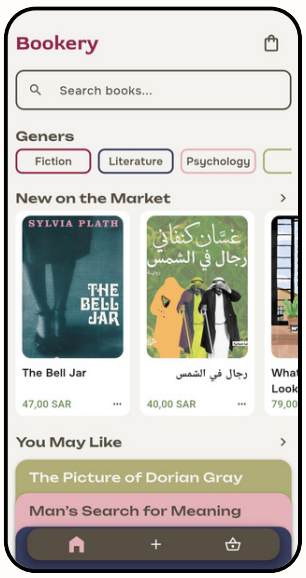
Component Name	Story Sequence Number	Use Cases (e.g., functionalities)
Add new book for sale	01	
Purchase a book	02	

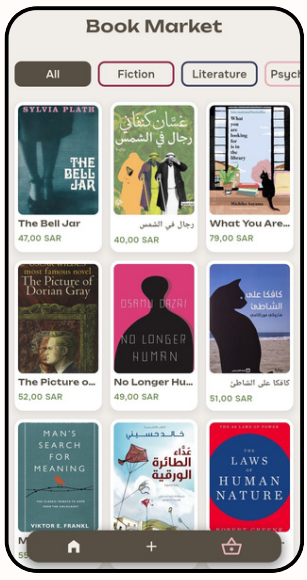
Follow-up meeting questions: Since the last meeting, we have successfully completed the core logic and development functions, including writing their user stories, creating test cases, and drawing the sequence diagram. For our next steps, we will proceed with implementing other remaining functions in the program and ensuring they are complete by the same way. The main impediment we faced was encountering problems when attempting to run the program after connecting Firebase, but this has been resolved by successfully migrating our local data handling from Firebase to the Hive database.



Implementation

below is the link to the Github repository
https://github.com/Bookery.git





Testing

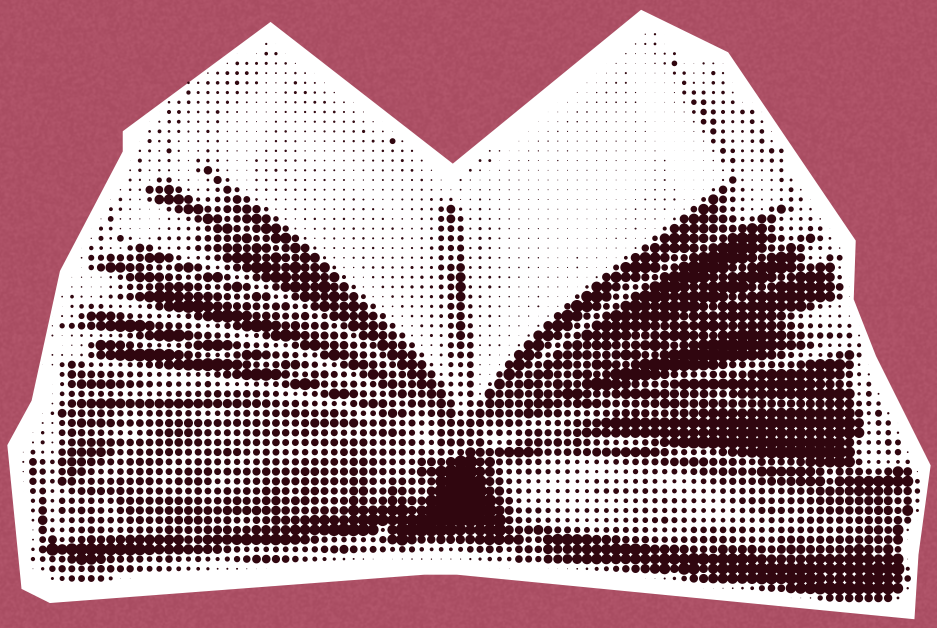
Test Case Name: Sprint#1 Add book for sale

Test Case No.	Test Case Description	Expected Results	Outcome (Pass / Fail / Other)
TC-AB01	User attempts to save a new book (on AddBook screen) while leaving the Title field blank.	System displays an error message: "Please enter book title."	Pass
TC-AB02	User attempts to save a new book (on AddBook screen) without selecting a **Cover Image** (when addBookCubit.coverUrl is null).	System prevents saving and displays a failure message: "Please ensure all fields are selected and files are selected.".	Pass
TC-AB03	User attempts to save a new book (on AddBook screen) without uploading the Book File (PDF).	System prevents saving and displays a failure message: "Please ensure all fields are selected and files are selected.".	Pass
TC-AB04	User completes all required fields (Title, Cover, File, Price) and taps Save.	The book is saved to Hive, the form is cleared, and the user is navigated back to the home screen..	Pass
TC-AB05	User enters invalid format (e.g., text) in the Price field and taps Save.	Validation fails; an error message is displayed.	Pass

Testing

Test Case Name: Sprint#1 Buy a Book

Test Case No.	Test Case Description	Expected Results	Outcome (Pass / Fail / Other)
TC-BB01	User views a book in the BookDetails page which is NOT currently in the basket.	The button displays 'Add to Basket' with an Add Icon and a pinks background.	Pass
TC-BB02	User taps the 'Add to Basket' button on the BookDetails page.	1.The button state changes to 'In Basket' 2.The book's isInBasket field in Hive is updated to true. 3. A message is displayed: "Book added to basket!".	Pass
TC-BB03	User views the Basket Page after adding a book.	The total number of items and the Total Price are correctly calculated and displayed.	Pass
TC-BB04	User completes all required fields (Title, Cover, File, Price) and taps Save.	1.The book's isInBasket field in Hive is updated to false. 2. The BooksCubit calls fetchAllBooks() to update the list. 3. A message is displayed: "Book is removed from basket!".	Pass



Sprint 2

جامعة جدة
University of Jeddah

Sprint 2

Requirement Specification:

Component Name:

Personal Library Management.

Sprint 2 Stories:

- **Story Sequence No:** 01

Story Short Description: User can add a new book to their personal library.
Story Long Description: The user will be able to add books to their personal library and initiate the reading process.

- **Story Sequence No:** 02

Story Short Description: User can track reading progress for books.
Story Long Description: The user will be able to set a status for the book. The available statuses can include "Reading" and "Completed".

- **Story Sequence No:** 03

Story Short Description: User can mark books as favorites.
Story Long Description: The user will be able to easily mark any book in their personal library as a "Favorite".

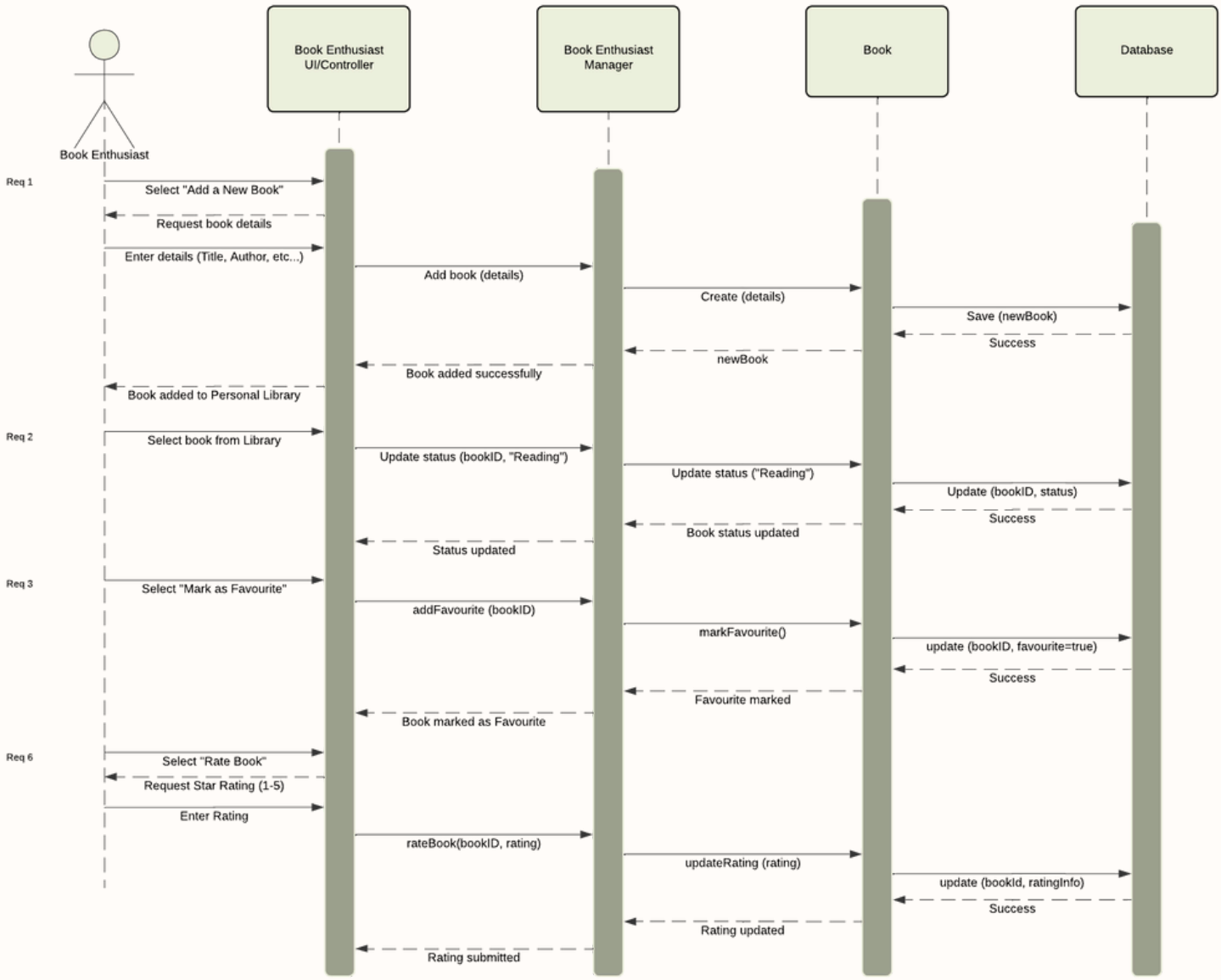
- **Story Sequence No:** 04

Story Short Description: User can rate books.
Story Long Description: The user will be able to submit a rating for any book they have completed. The rating must be captured using a simple star rating system, ranging from 1 to 5 stars.

Design

- **Sequence Diagram :**

Personal Library Management.



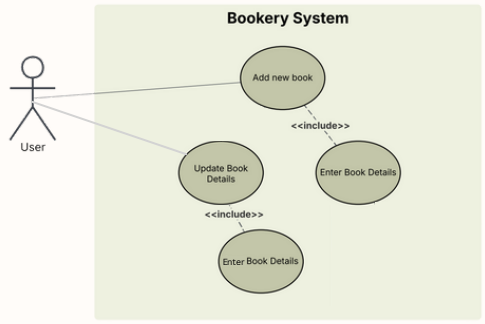
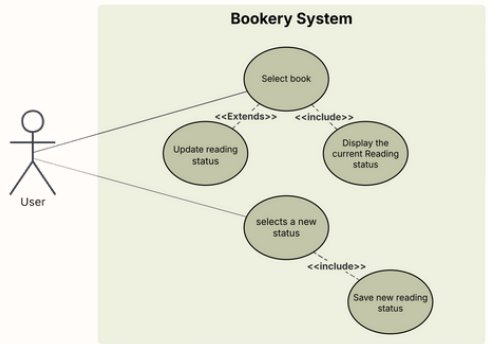
Meeting Details

Sprint Meeting(s)

Project Name: Bookery
Project Members:
Jumana Al-asmi - Aliyh Al-rwithi - Ghadeer Al-saeedi - Mariam Anbr

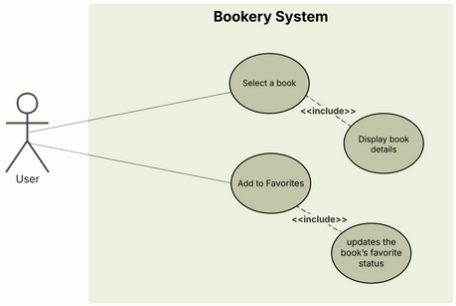
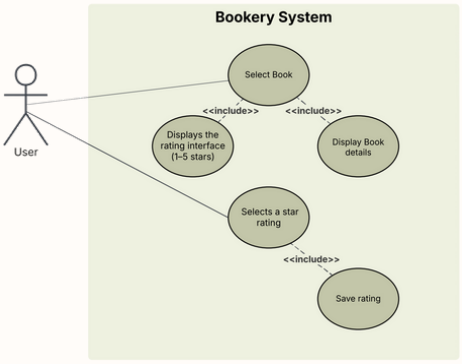
Sprint #2 Stand up Meeting - [13/11/2025]

Sprint Duration: 2 Weeks.
Scrum Master: Jumana Al-asmi
Client: Ms. Malak Alharbi
Pair Programmers: Jumana Al-asmi and Aliyh Al-rwithi
Stories:

Component Name	Story Sequence Number	Use Cases (e.g., functionalities)
Add a new book to personal library	01	
Track reading progress	02	

Meeting Details

Sprint Meeting(s)

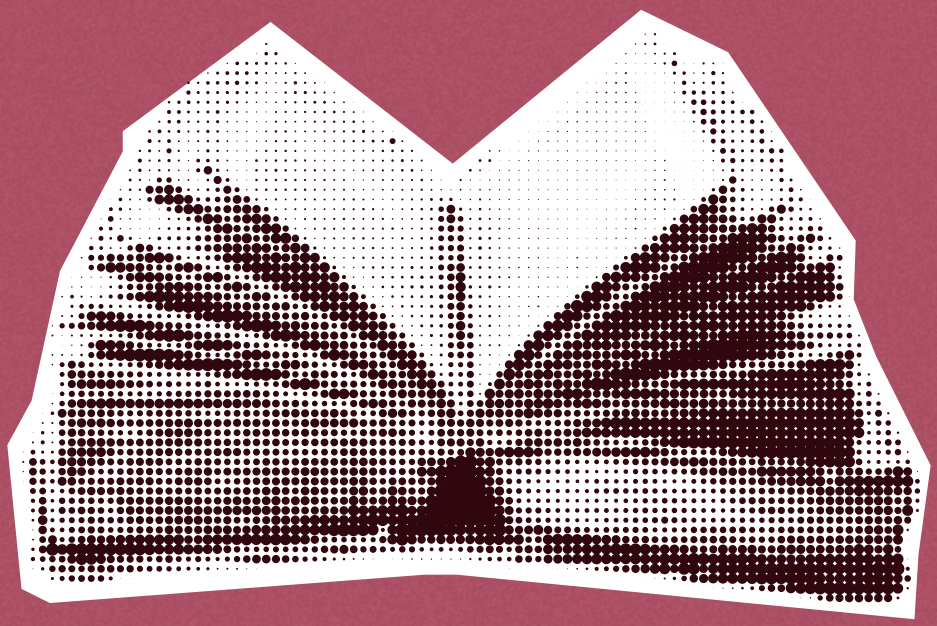
Component Name	Story Sequence Number	Use Cases (e.g., functionalities)
Mark books as favorites.	03	
Rate books.	04	

Follow-up meeting questions: Since the last meeting, we have successfully completed the core logic and development functions, including writing their user stories, creating test cases, and drawing the sequence diagram. For our next steps, we will proceed with implementing the remaining functions in the program and ensuring they are completed using the same approach. The main impediment we faced was encountering an issue in the library section regarding how to update the books in the correct order within the personal library.

Testing

Test Case Name: Sprint#2 Personal Library Management

Test Case No.	Test Case Description	Expected Results	Outcome (Pass / Fail / Other)
TC-PLM01	user attempts to submit a rating for a book whose status is not "Completed" (e.g., "Reading").	The rating interface is either disabled, hidden, or an error message is displayed ("You must complete the book to rate it").	Pass
TC-PLM02	The user clicks the favorite button to mark a book as a favorite.	The favorite icon changes state (e.g., becomes filled/colored), and the book is added to the "Favorites" filter or section.	Pass
TC-PLM03	The Seller clicks the 'Delete' button and then confirms the action in the prompt	The book is permanently removed from the market. A success message might be displayed.	Pass
TC-PLM04	A user successfully completes the purchase process for a book listed in the Book Market.	The purchased book is immediately removed from the market list (no longer available for purchase).	Pass
TC-PLM05	A user successfully completes the purchase process for a book listed in the Book Market.	The purchased book is successfully added and visible in the current user's personal library.	Pass



Sprint 3

جامعة جدة
University of Jeddah

Requirement Specification:

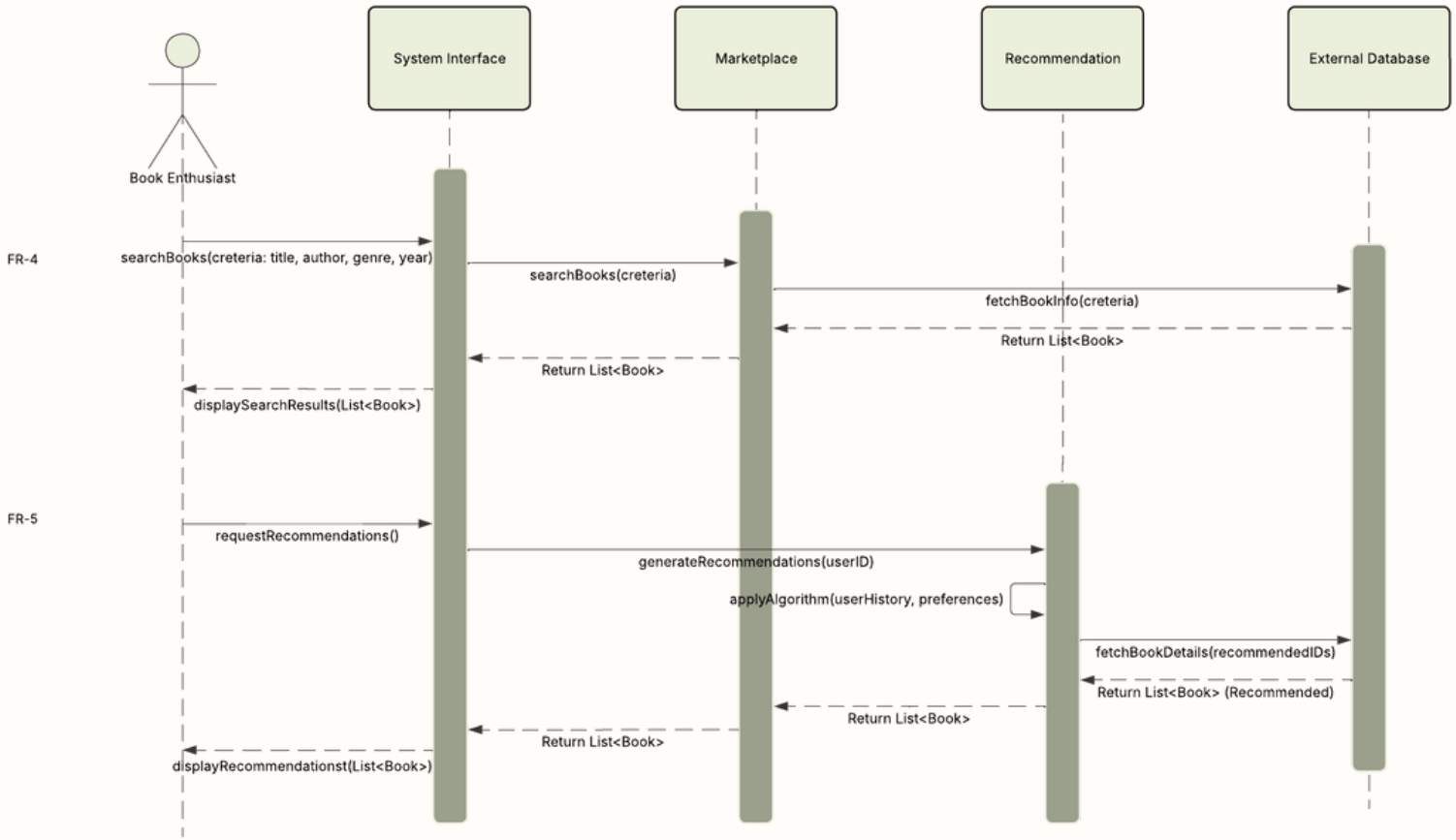
Sprint 3 Stories:

1-Component Name: Search Books.
Story Sequence No: 03 Story
Short Description: User can search for specific books using keywords.
Story Long Description: User will be able to search for books by entering specific keywords such as the Book Title, Author Name into a dedicated search bar. The system shall display a list of matching results.

2-Component Name: View Recommendations.
Story Sequence No: 04 Story
Short Description: User can view suggested books based on their interests.
Story Long Description: The system shall analyze the user's personal library to algorithmically generate and display a list of books that match their likely preferences.

Design

- **Sequence Diagram :**
- Search Books
- View Recommendations



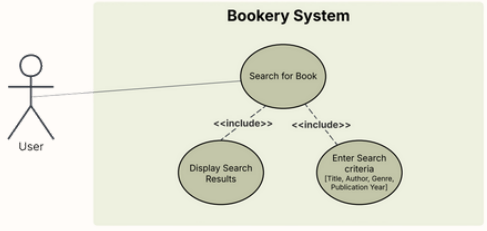
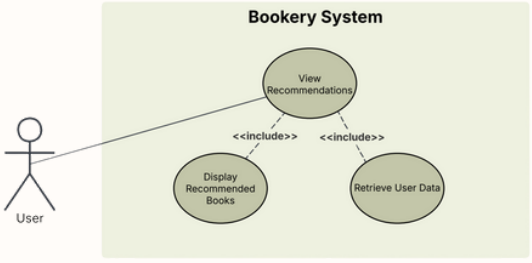
Meeting Details

Sprint Meeting(s)

Project Name: Bookery
Project Members:
Jumana Al-asmi - Aliyh Al-rwithi - Ghadeer Al-saeedi - Mariam Anbar

Sprint #3 Stand up Meeting - [27/11/2025]

Sprint Duration: 2 Weeks.
Scrum Master: Jumana Al-asmi
Client: Ms. Malak Alharbi
Pair Programmers: Ghadeer Al-saeedi and Mariam Anbar
Stories:

Component Name	Story Sequence Number	Use Cases (e.g., functionalities)
Search Books.	01	
View Recommendations.	02	

Follow-up meeting questions:
Since the last meeting, we have successfully completed the core logic and development functions. We proceeded with implementing the other remaining functions in the program and ensured they are completed. We are pleased to report that we did not face any impediments, and the application development has proceeded smoothly.

Testing

Test Case Name: Sprint#3 Search Books.

Test Case No.	Test Case Description	Expected Results	Outcome (Pass / Fail / Other)
TC-SB01	User searches for a book using a specific title.	Only books that match the entered title are displayed.	**Pass**
TC-SB02	User searches for books by author name.	A list of books written by the specified author is displayed.	**Pass**
TC-SB03	User searches for books by genre (e.g., Fiction, Fantasy).	All books that match the selected genre are displayed.	**Pass**
TC-SB04	User searches using multiple criteria (e.g., title + genre).	Books that satisfy all entered criteria are displayed accurately.	**Pass**

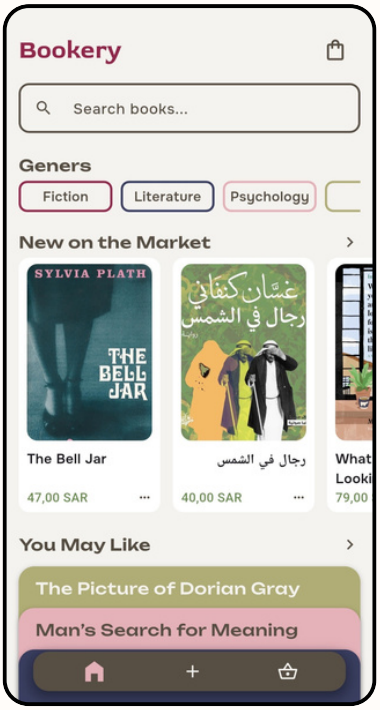
Testing

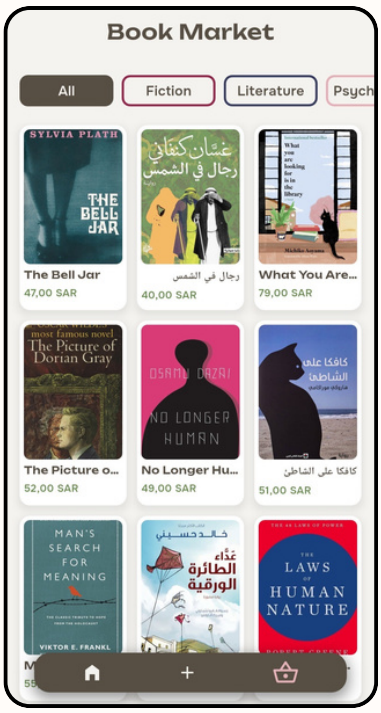
Test Case Name: Sprint#3 View Recommendations.

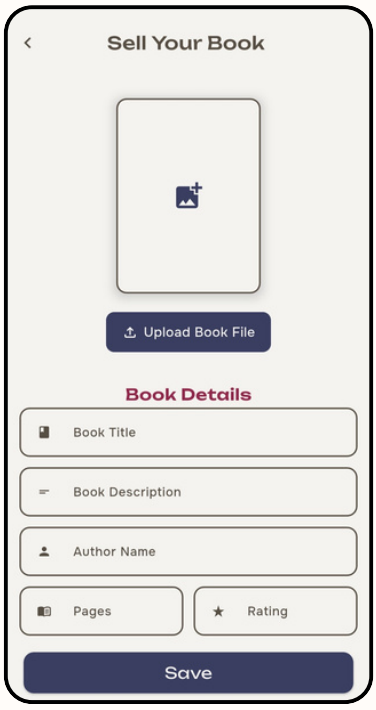
Test Case No.	Test Case Description	Expected Results	Outcome (Pass / Fail / Other)
TC-VR01	User completes reading several books and opens the Recommendations page.	Recommended books are based on the user's reading history (genres/authors).	**Pass**
TC-VR02	User updates their preferences (favorite genres/authors).	Recommendation results are updated to reflect the new preferences.	**Pass**
TC-VR03	A new user with no reading history opens the Recommendations page.	System shows generic or trending book recommendations.	**Pass**
TC-VR04	User adds new books to their reading history (marked as completed).	Recommendation list is updated to include books related to the newly completed ones.	**Pass**
TC-VR05	User rates several books with high and low ratings.	Future recommendations adapt to the ratings, improving relevance and personalization.	**Pass**

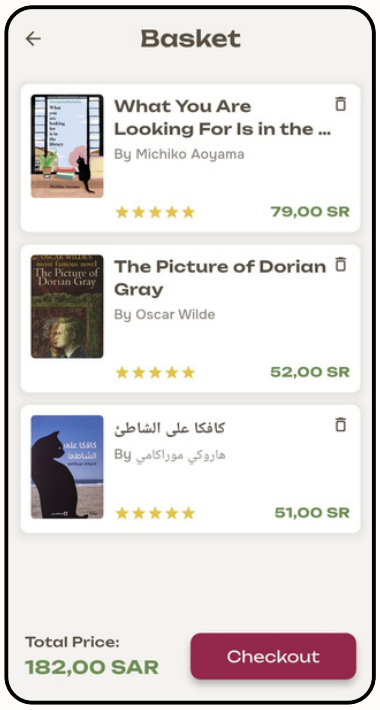
Sprint 3

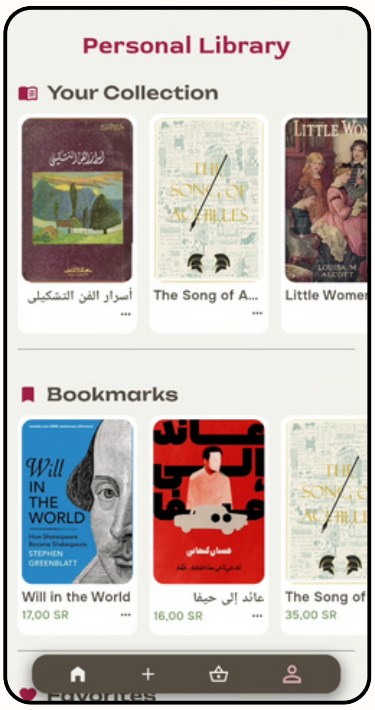
A Look at Bookery



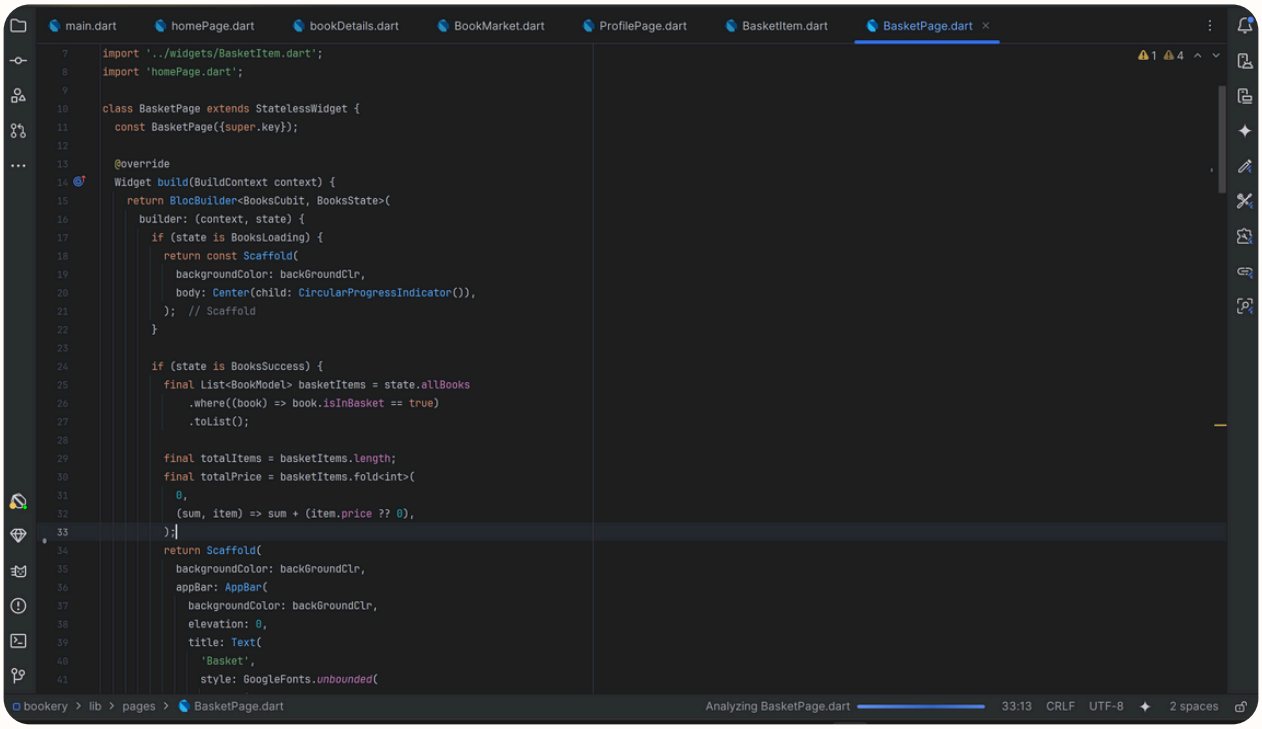








Part of the Code



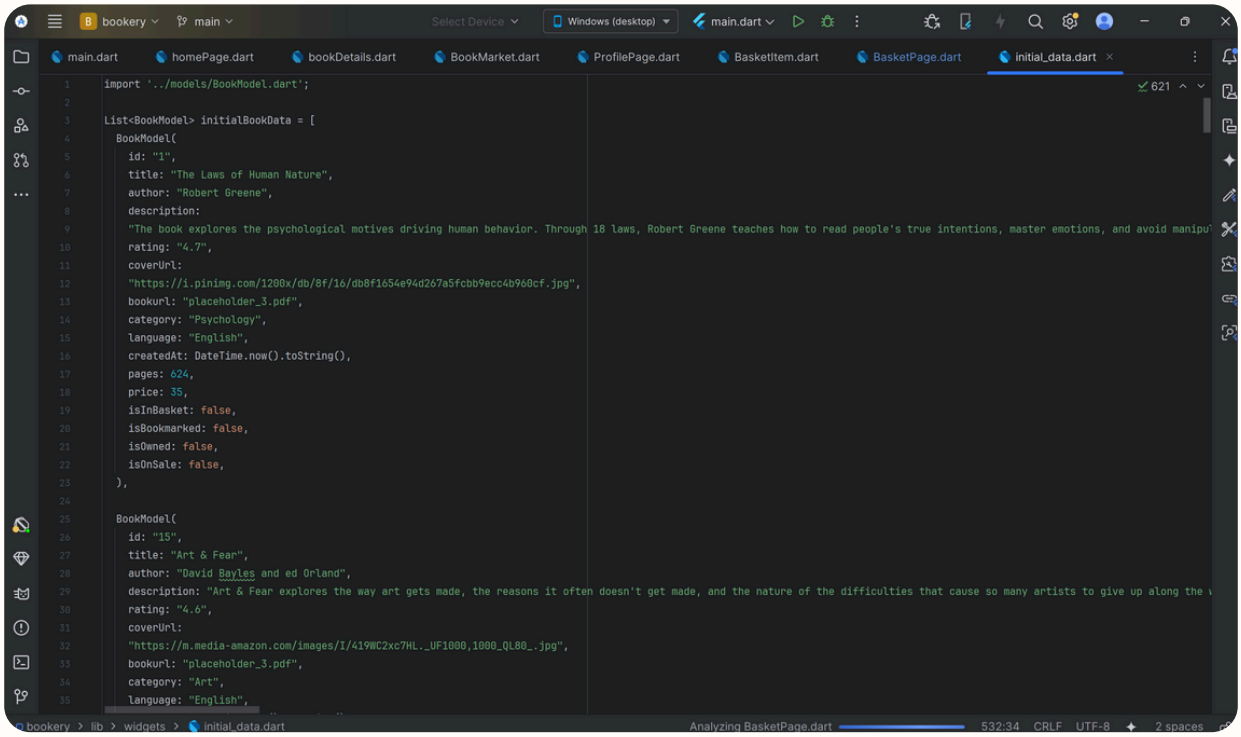
```dart
import '../widgets/BasketItem.dart';
import 'homePage.dart';

class BasketPage extends StatelessWidget {
  const BasketPage({super.key});

  @override
  Widget build(BuildContext context) {
    return BlocBuilder<BooksCubit, BooksState>(
      builder: (context, state) {
        if (state is BooksLoading) {
          return const Scaffold(
            backgroundColor: backGroundClr,
            body: Center(child: CircularProgressIndicator()),
          ); // Scaffold
        }

        if (state is BooksSuccess) {
          final List<BookModel> basketItems = state.allBooks
              .where((book) => book.isInBasket == true)
              .toList();

          final totalItems = basketItems.length;
          final totalPrice = basketItems.fold<int>(
            0,
            (sum, item) => sum + (item.price ?? 0),
          );
          return Scaffold(
            backgroundColor: backGroundClr,
            appBar: AppBar(
              backgroundColor: backGroundClr,
              elevation: 0,
              title: Text(
                'Basket',
                style: GoogleFonts.unbounded(
```



```dart
import '../models/BookModel.dart';

List<BookModel> initialBookData = [
  BookModel(
    id: "1",
    title: "The Laws of Human Nature",
    author: "Robert Greene",
    description:
    "The book explores the psychological motives driving human behavior. Through 18 laws, Robert Greene teaches how to read people's true intentions, master emotions, and avoid manipu
    rating: "4.7",
    coverUrl:
    "https://i.pinimg.com/1200x/db/8f/16/db8f1654e94d267a5fcbb9ecc4b960cf.jpg",
    bookurl: "placeholder_3.pdf",
    category: "Psychology",
    language: "English",
    createdAt: DateTime.now().toString(),
    pages: 624,
    price: 35,
    isInBasket: false,
    isBookmarked: false,
    isOwned: false,
    isOnSale: false,
  ),

  BookModel(
    id: "15",
    title: "Art & Fear",
    author: "David Bayles and ed Orland",
    description: "Art & Fear explores the way art gets made, the reasons it often doesn't get made, and the nature of the difficulties that cause so many artists to give up along the
    rating: "4.6",
    coverUrl:
    "https://m.media-amazon.com/images/I/419WC2xc7HL._UF1000,1000_QL80_.jpg",
    bookurl: "placeholder_3.pdf",
    category: "Art",
    language: "English",
```

Part of the Code