



Circularbook Project Specifications

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1. INTRODUCTION

1.1 AIM OF THE DOCUMENT

The main point of the following document is present objectively the fundamental requirements and specific ones of the system *CircularBook*. So, we will be doing a review of all the important internal and external aspects of the system with the help of some diagrams.

1.2 OVERVIEW OF THE DEFINED SYSTEM

The aim of CircularBook is to allow a free and open exchange of books, so that we can get back to reading in a more sustainable way.

You can use CircularBook as three types of users:

As a User:

- Include books to lend or give as gifts.
- Borrow books placed by other users or bookshops.
- Follow events or promotions inserted by bookshops.
- See the list of books inserted or given.
- Change your personal information entered during registration.

As a BookShop:

- Enter books to lend or give as gifts.
- Insert events or promotions that can be seen by users.
- Manage your inserted books and your opportunities.
- Change the personal information entered during registration.

As a guest:

- Access the system without having registered.
- See the list of books inserted by users and bookstores without being able to take them.
- See the opportunities inserted by the bookshops.
- Interact with the system in two ways: via graphical interface or a textual one.

1.3 HARDWARE AND SOFTWARE REQUIREMENTS

- Internet connection.
- MySQL connection.
- Maven installed and set

1.4 RELATED SYSTEMS, PROS AND CONS

Empty

1.5 VOCABULARY

User: The user can insert books, take them, or view the opportunities offered by book shops.

Book Shop: The book shop can insert books and insert opportunities.

Guest: The guest user accesses the user homepage with limitations; in fact, they can perform searches but cannot take or insert books."

Book

Opportunity

Book on lend

Book on gift

Circular Book Info: It's a general summary indicating how Circular Book has been utilized, in terms of currently inserted books, books that have been taken, and books that have been given.

Type of Opportunities: Opportunities can be categorized as either Event or Promotion.

Type of Books: Books can be placed either in Lend, which involves a type of return, or as a Gift, for which no return is expected.

2. USER STORIES

2.1 US-1

1) As a user I would like to be able to lend or give away my books, so that I can recycle books I no longer use.

2.2 US-2

2) As a user I would like to be able to take or lend books I would like to read so that I don't have to buy them.

2.3 US-3

3) As a bookshop I would like to be able to insert events/promotions, so that I can promote my bookshop.

3. FUNCTIONAL REQUIREMENTS

3.1 FR-1

1) The system shall show a list of available books

3.2 FR-2

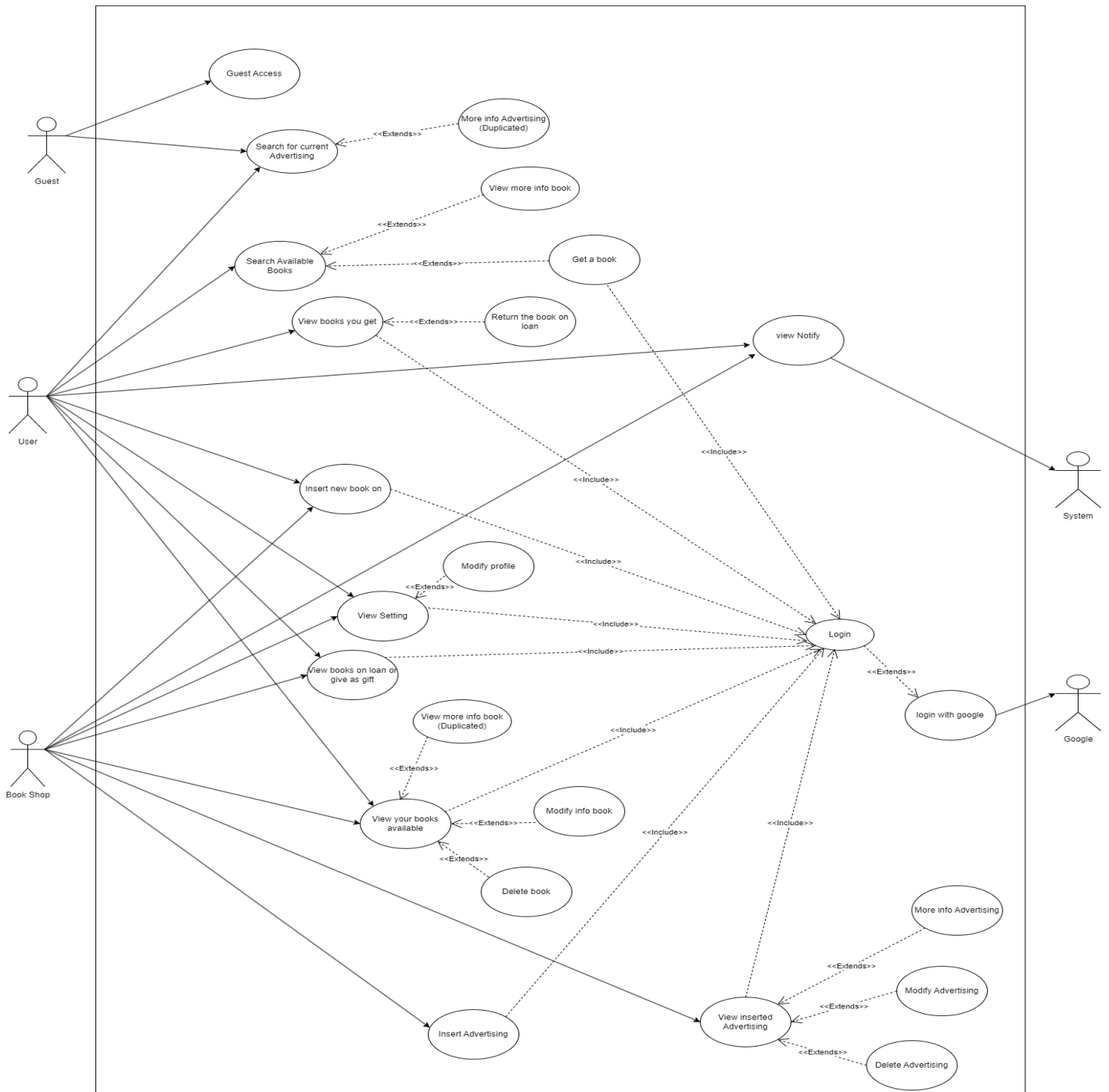
2) The system shall provide a way to enter books along with their information

3.3. FR-3

3) The system shall allow you to register as a user or as a bookshop.

4. USES CASES

4.1 OVERVIEW DIAGRAM



4.2 INTERNAL STEPS

Title: Book Insertion

1. The user requests access.
2. The system compares the credentials entered with those present in the database.
3. The system provides input fields for the new book to be registered.
4. The user fills in the required fields and submits.
5. The system records the data of the book sent.
6. The system updates the list and number of books sent by the user.
7. The system sends a notification confirming the registration of the book.

Extension

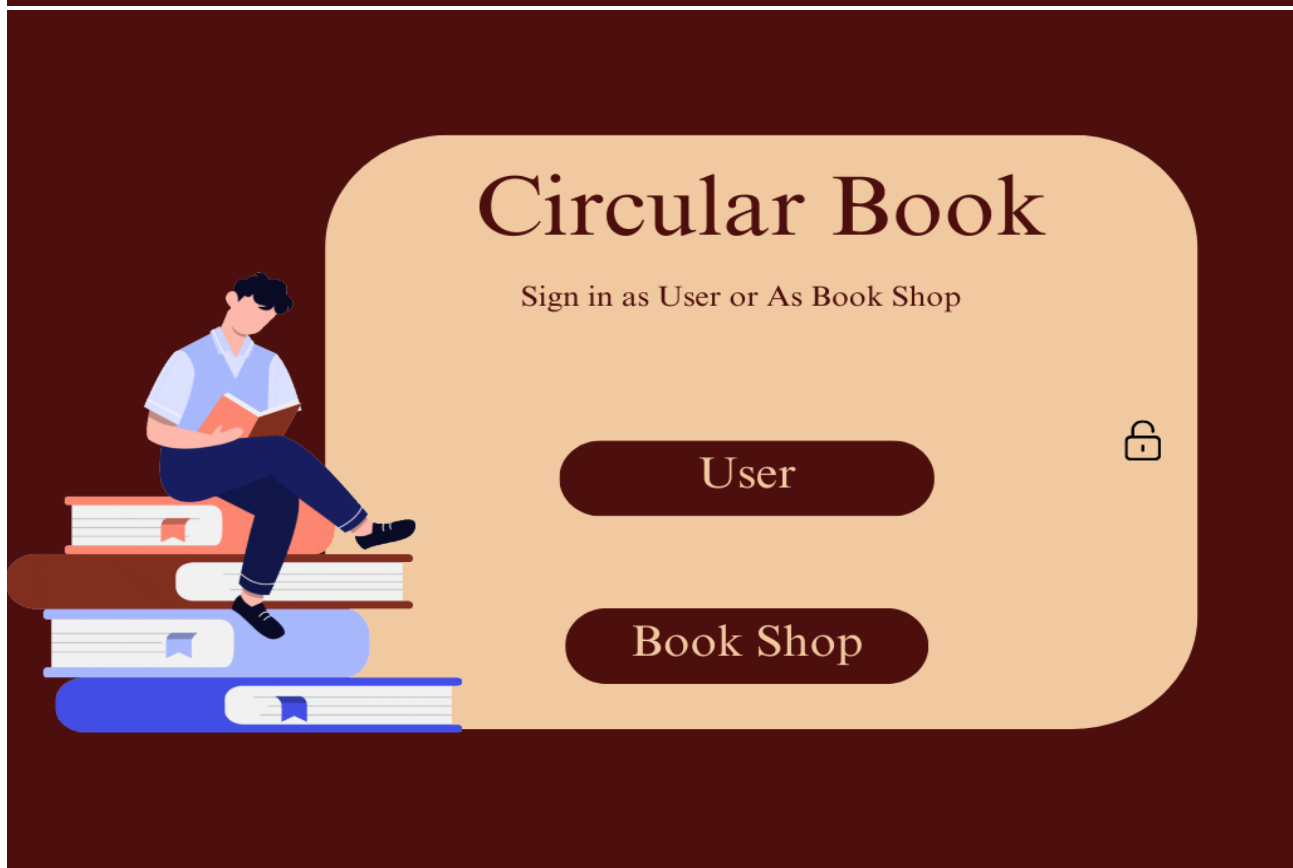
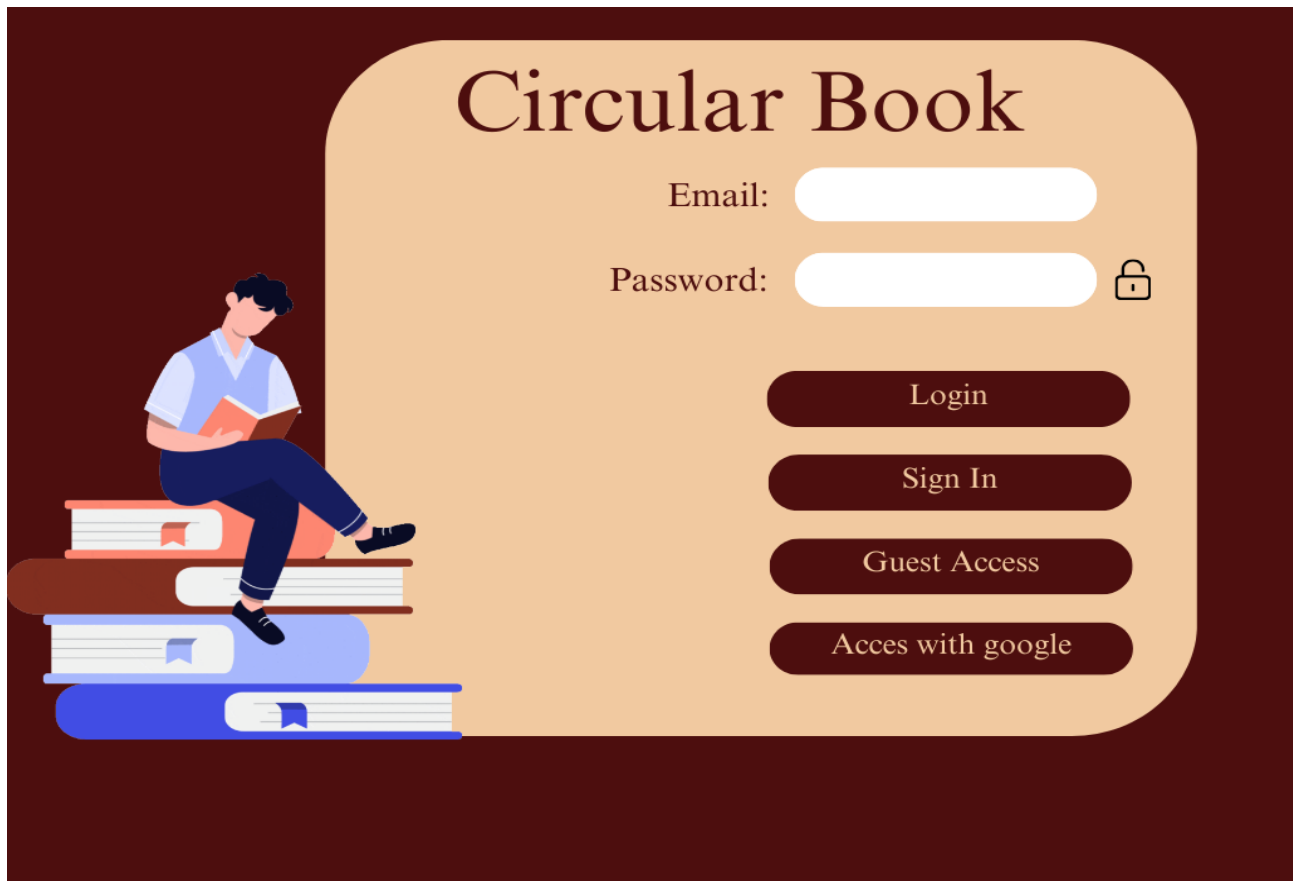
- 1a. The user does not enter a valid e-mail format, the system notifies of the wrong format and shows an example of the correct format.
- 2a. The credentials entered have no correspondence in the system. The system notifies that the user may not be registered or may have entered incorrect data.
- 4a. The user has not filled in all the mandatory fields. The system notifies you that there are some mandatory fields that have not been filled.
- 4b. The user is entered in a field of prohibited characters. The system notifies you that there has been an insertion error, and indicates what type of characters should be inserted in that field.
- 4c. The user did not enter the format required for a field. The system notifies you that there has been an insertion error and indicates what type of format should be used for that field.

5. STORYBOARDS

The first storyboard shows the User registration process.

The first image shows the login screen, by clicking on “Sign In” we move on the screen to decide which user we want to register as.

The last screen is the form to fill in for registration.





The image shows a mobile app interface for signing in. It features a dark red background with a light orange rounded rectangle in the center. At the top left of the rectangle is a back arrow icon. The title 'Sign In User' is centered at the top in a large, dark red serif font. Below the title are six input fields, each with a label to its left and a validation icon to its right. The fields are: 'Email' (with an asterisk), 'Password' (with an asterisk and a lock icon), 'Re Password' (with an asterisk and a lock icon), 'Username' (with no icon), 'Name' (with no icon), and 'Surname' (with no icon). The 'City' field is a dropdown menu with 'Any' selected and a downward arrow, with an asterisk to its right. At the bottom of the rectangle are two dark red rounded buttons with white text: 'Sign In' on the left and 'Back to Login' on the right.

Sign In User

Email *

Password * 🔒

Re Password * 🔒

Username

Name

Surname

City Any ▼ *

Sign In Back to Login

The second storyboard shows the steps to check the books that have been inserted.

The first screen shows the User Homepage, the next is the one that shows the Bookshop management options.

The last one shows the list of books inserted

Circular Book

Philosophy for using CircularBook

CircularBook is a system for sharing books on loan or as gifts.

- Always respect the books that are given to you on loan
- Always respect the return dates
- Back to circulating the books again!



Insert a book

Search A book to take home

View Sales Available

View your Library

Circular Book

Your Library

Your Book Available

Books you have took

Yours Books Took

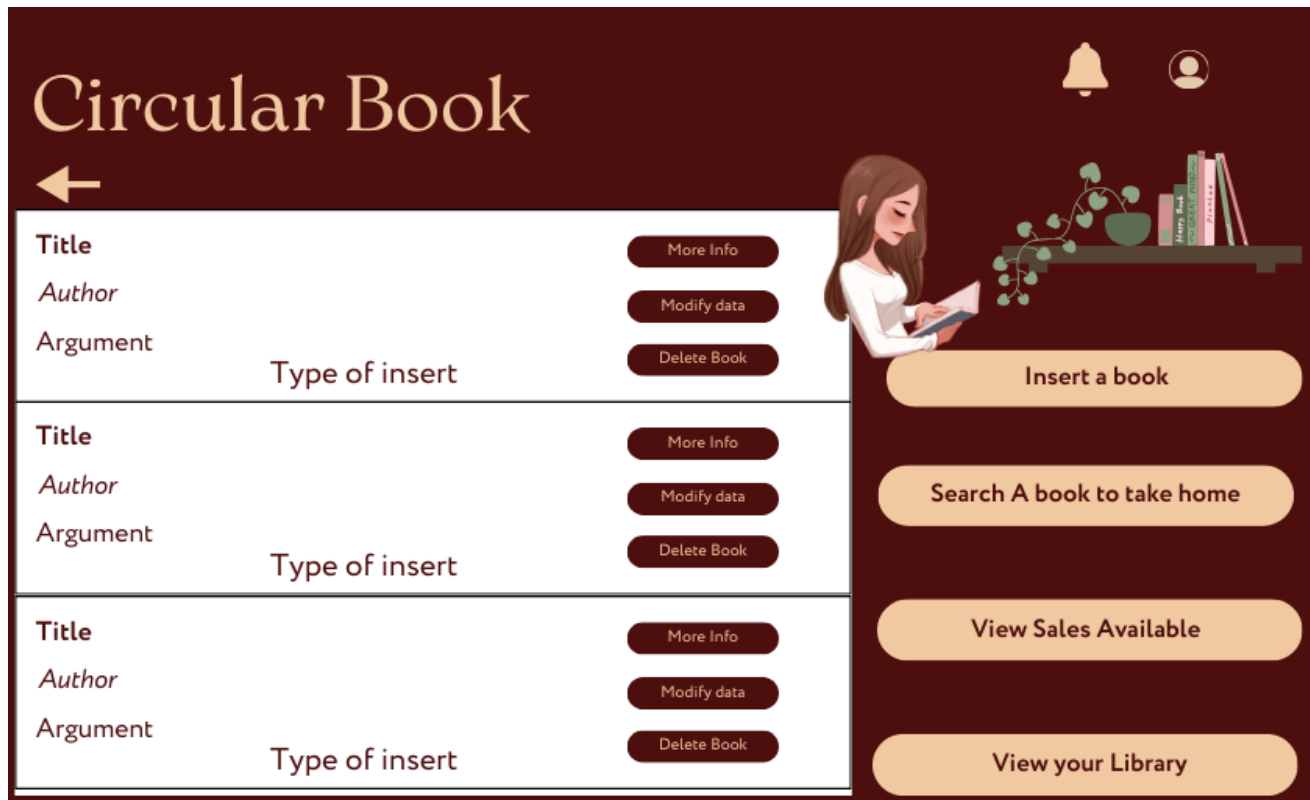


Insert a Book

Search A book to take home

View Sales Available

View your Library



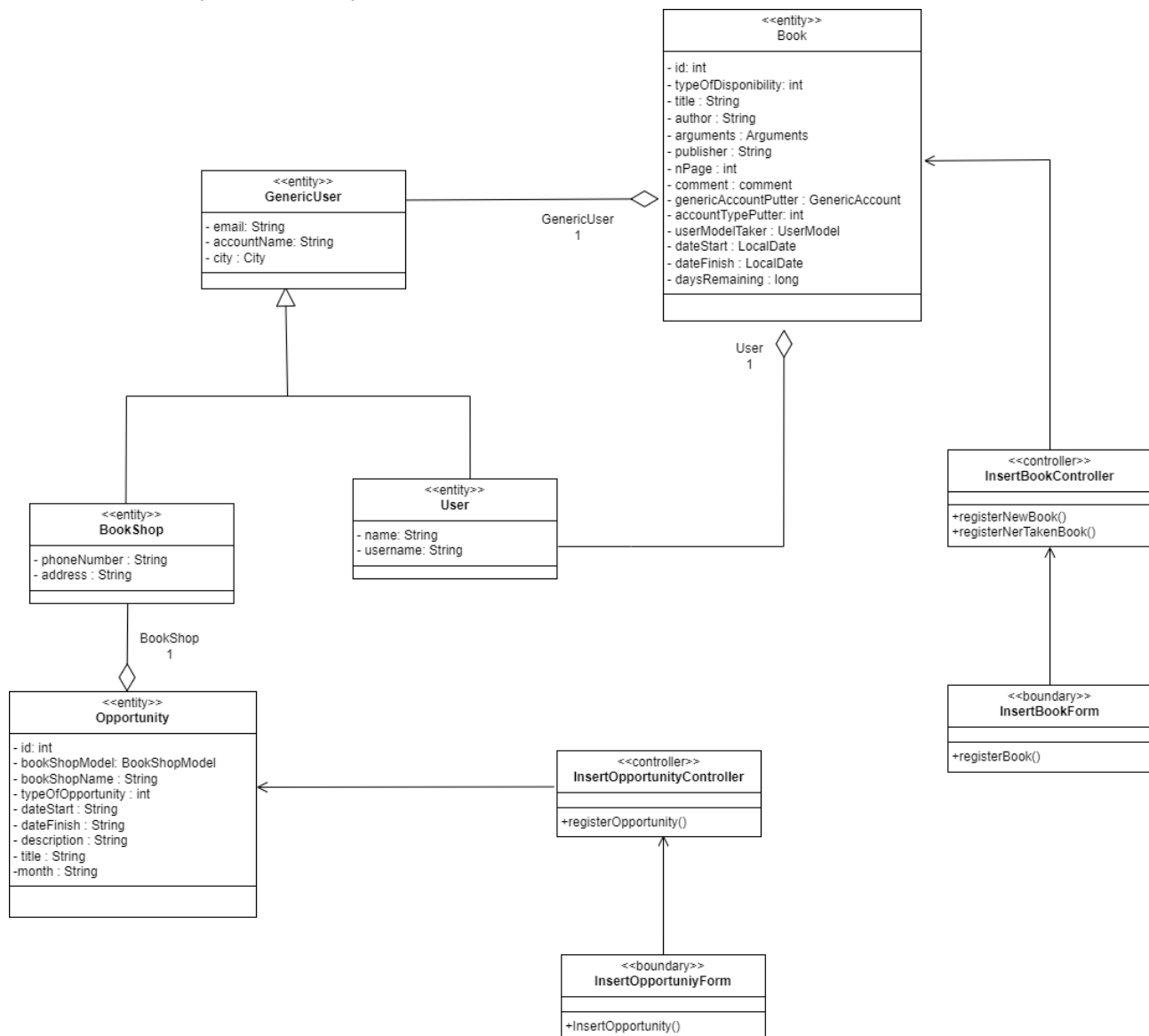
6. DESIGN

In this part the principal internal characteristics of the system will be exposed, with some diagrams to express it.

6.1 CLASS DIAGRAM

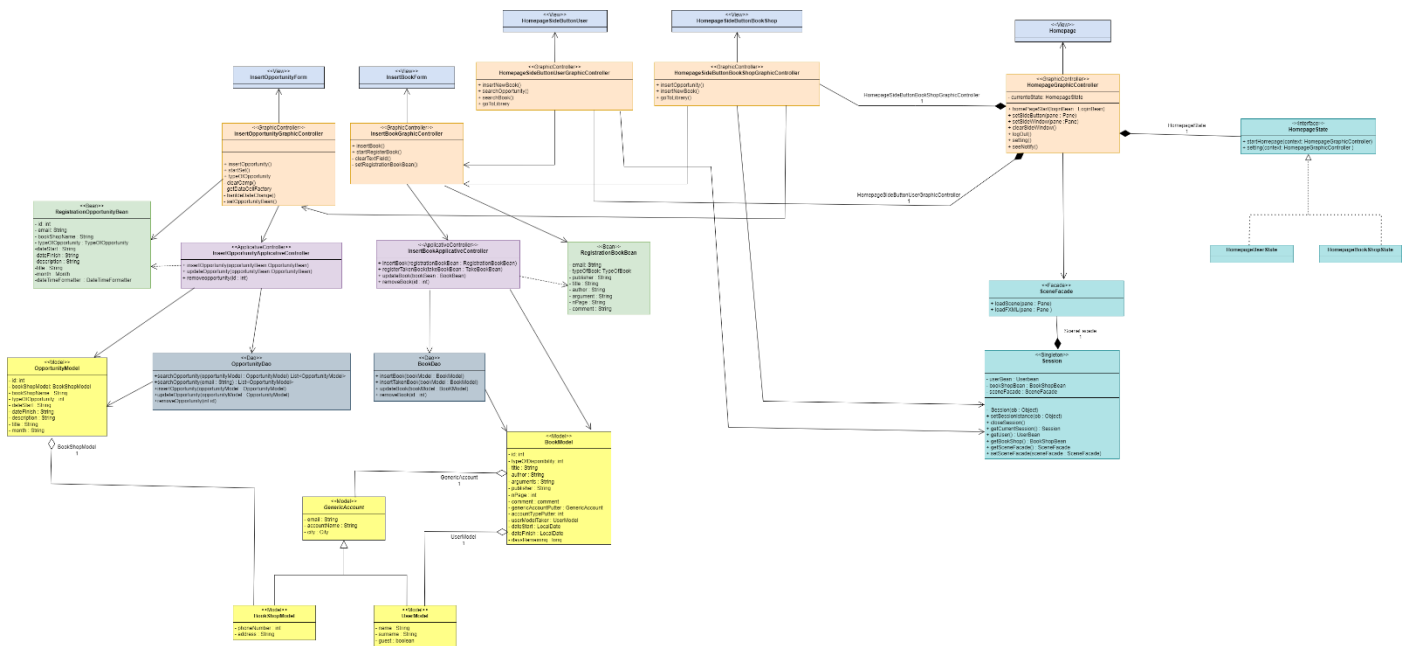
This diagram is attached near to this document to be able to have a closer look to it.

6.1.1 VOPC (ANALYSIS)



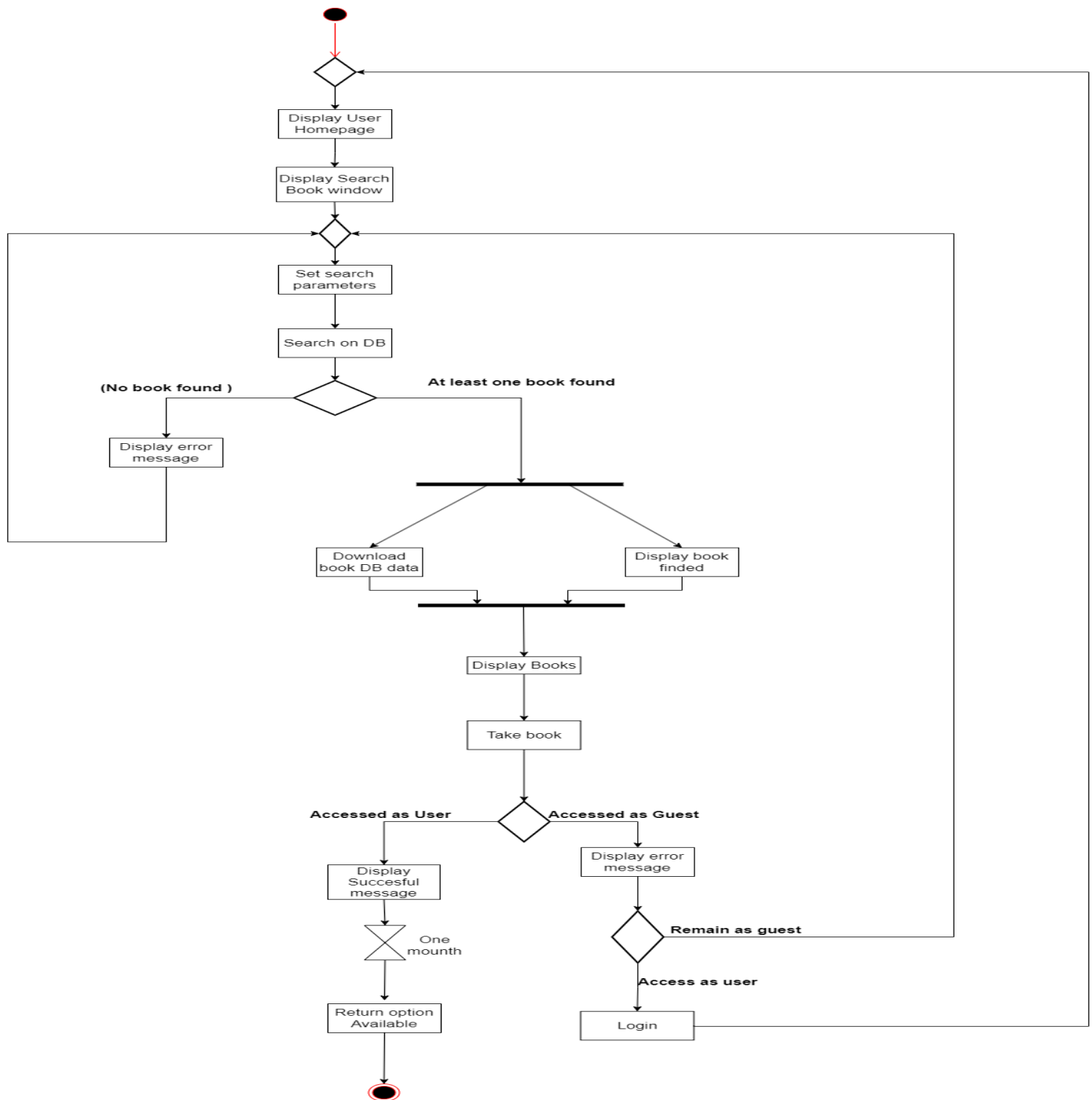
6.1.2. DESIGN-LEVEL DIAGRAM

This diagram is attached near to this document to be able to have a closer look to it.



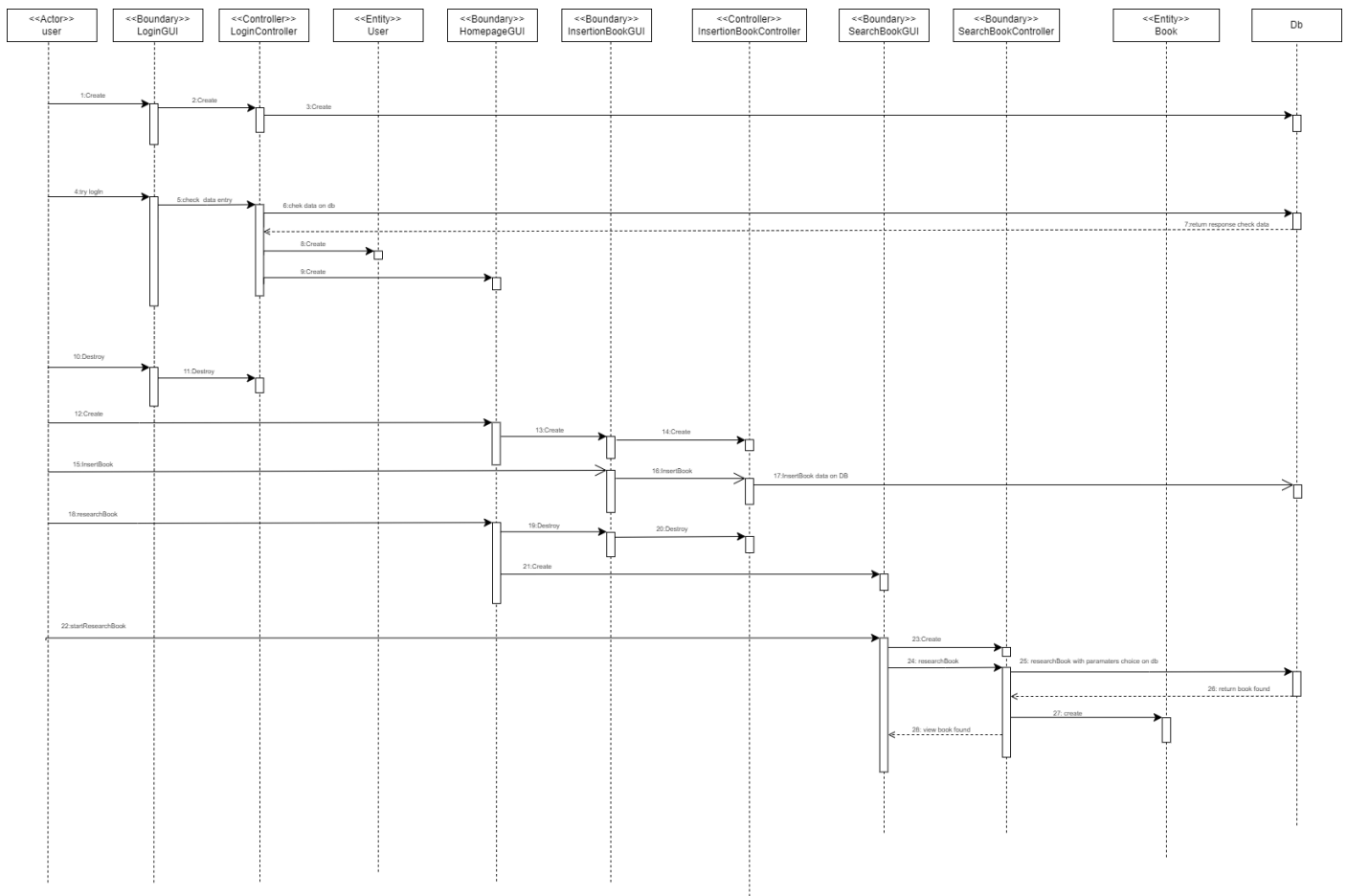
7. ACTIVITY DIAGRAM

This diagram is attached near to this document to be able to have a closer look to it.

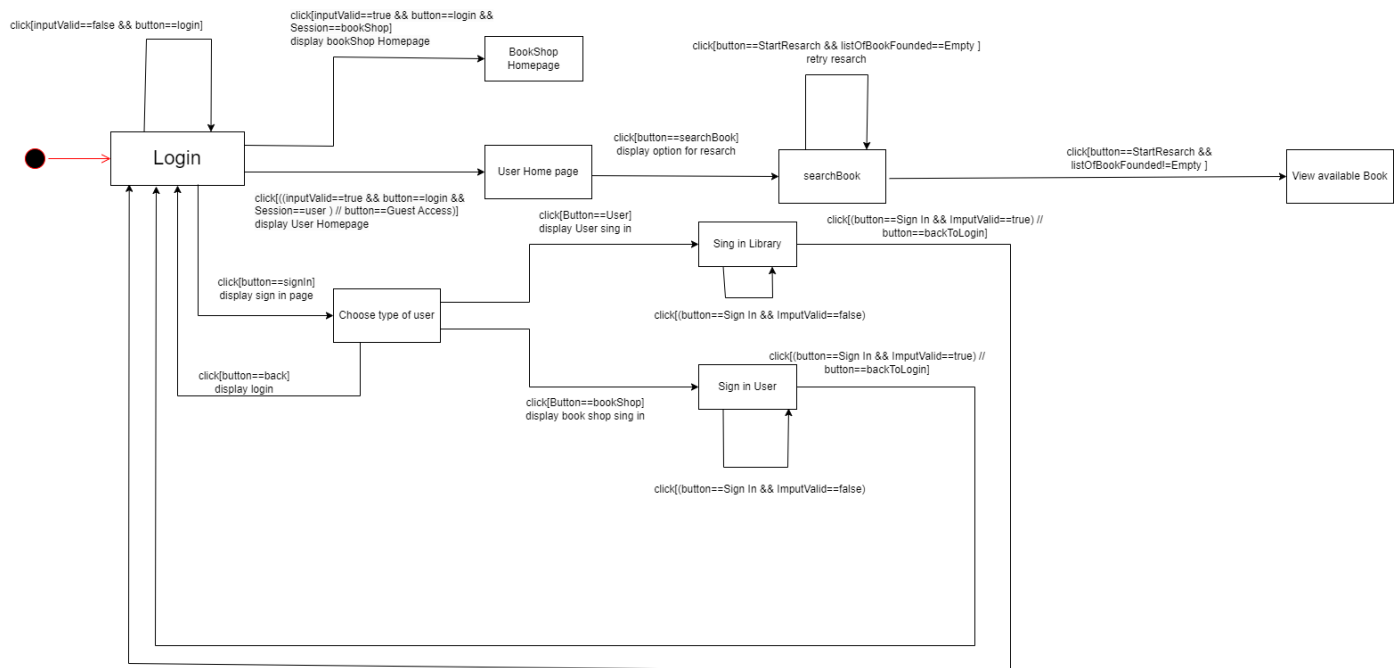


8. SEQUENCE DIAGRAM

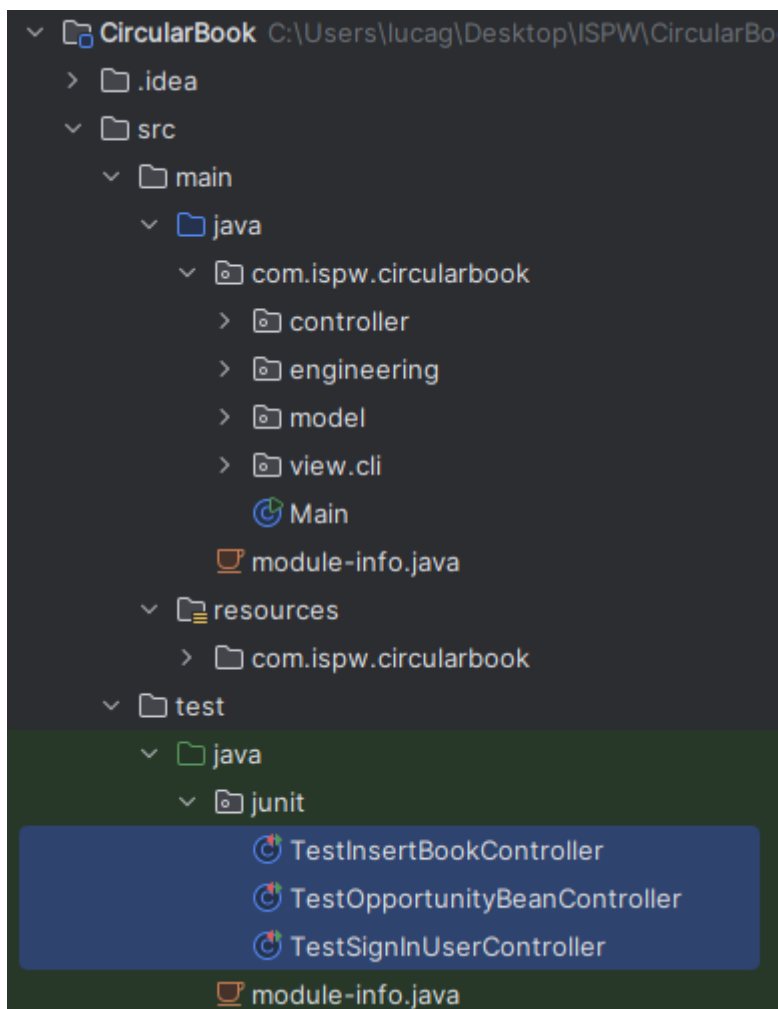
This diagram is attached near to this document to be able to have a closer look to it.



9. STATE DIAGRAM

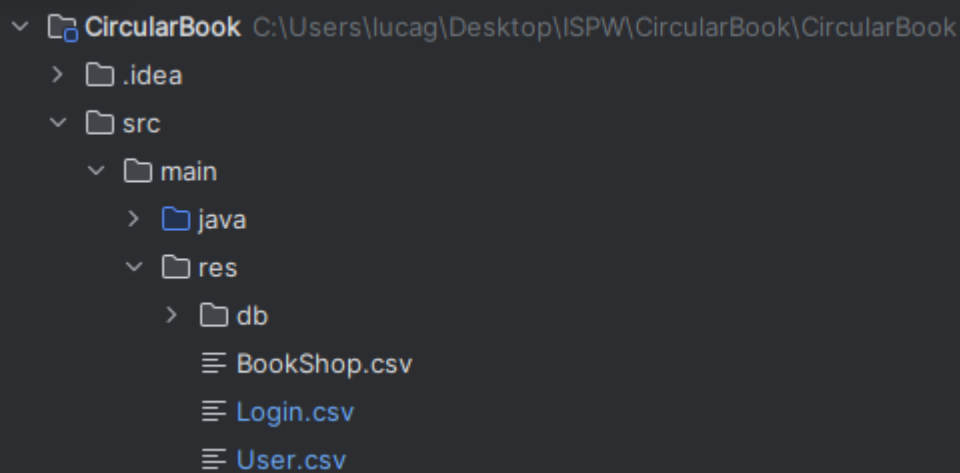


10. TESTING



11. DATA BASES

11.1 FILE SYSTEM

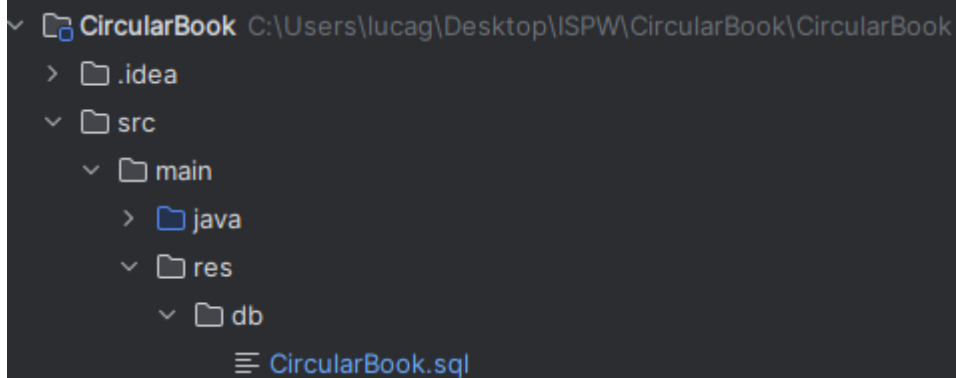


```

CircularBook C:\Users\lucag\Desktop\ISPW\CircularBook\CircularBook
├── .idea
├── src
│   ├── main
│   │   ├── java
│   │   └── res
│   │       ├── db
│   │       │   ├── BookShop.csv
│   │       │   ├── Login.csv
│   │       │   └── User.csv

```

11.2 MYSQL



```

CircularBook C:\Users\lucag\Desktop\ISPW\CircularBook\CircularBook
├── .idea
├── src
│   ├── main
│   │   ├── java
│   │   └── res
│   │       └── db
│   │           └── CircularBook.sql

```

12. SONAR CLOUD

<https://sonarcloud.io/projects?sort=name>

13. GITHUB LINK

13.1 PROJECT REPOSITORY

<https://github.com/LGiovProject/ISPW>

13.2 DELIVERABLES REPOSITORY

<https://github.com/LGiovProject/CircularBook-Deliverables.git>