CSE347: Information System Analysis and Design
Fall 2022

Project Report
Group No. – 2 (Section 5)

Submitted To:

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Introduction:

Our project is about Online book reading Management system.Online book reading Management System is a system which maintains the information about the books present in the web. We will have a web-based system where reader can read the available book and can exchange any books according to their own choice. Admin will have the full control of this web-based system. Admin and reader will use the web-based system by logging in with the web link. We are using SQL developer for our web-based system.

Our Web Application Name: ‘Boikhor’

Scenario:

Online book reading management system project is a desktop application developed on the mySQL. Online book reading management is an open source file which has access of readers and controlled by an admin. file and edited as needed. This online application works 100% smoothly with no errors.
Developed using SQL, CSS, HTML, PHP, BOOTSTRAP.

Identifying Stakeholders:

Admin: They have access to interact all administrative panel options like add book, delete book; Readers related issues like: reader detail.

Reader: Has access to use this service. The readers can read books, exchange any books.

Internet Service Provider (ISP): They provide internet service for our system.

Domain Hosting Service Provider: A domain hosting service a type of internet hosting service that allows individuals and organizations to make their website accessed via the Worldwide Web (WWW) and provides space on a server as well as providing internet connectivity, typically in a data centre.

Database: Firebase MySQL database will be used for storing data.

Developers: Have selected developers as stakeholders, because they will develop this system and will work for further improvement.

Recognizing Multiple Viewpoints:

1. Admin's viewpoints:

- Web based Interfaces
- Allow the system to be accessed via the Internet
- Maintain a database for storing necessary information
- Database must be secured
- Take decision in the situation of any changes of the system

2. The Reader's viewpoints:

- Allow the system to be via Internet
- Easy access and user-friendly interface
- Allow any user to get information from the system
- Get appropriate result

Requirements:

Functional requirements:

- Online book reading management must have the admin control system.
- The admin must be able to give the user access to the readers
- The registered user can read book and exchange the books.
- Searching any books without any account
- Individual login account
- Allow any visitor to view the 'BoiKhor' web app
- The system only allow user to read books with valid id and password to enter the system
- System must be able to verify information
- System must be able to filter book based on keyword enterd
- Give reliable search facility for the users
- The software must need to store the membership or readers details.
- The software must have the shopping details of customer.

Non-Functional:

- **RELIABILITY**-The system should accurately perform reader's registration, reader's validation.

- **USABILITY-** The system is designed for a user-friendly environment so that reader can perform the various tasks easily and in an effective way.
- **EFFICIENCY-** Online book reading management system will be provided Admin and user easily access to BoiKhor.
- **Security**
- **Reusability**
- **Portability**

Software Requirements:

- **Operating system**- Windows 10 is used as the operating system as it is stable and supports more features and is more user friendly
- **Database MYSQL**- MYSQL is used as database as it easy to maintain and retrieve records by simple queries which are in English language which are easy to understand and easy to write.
- **Development tools and Programming language-** HTML is used to write the whole code and develop webpages with css, java script for styling work and php for sever side scripting.

Feasibility Study:

Operational feasibility-

Operational feasibility is a measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development. Operational feasibility reviews the willingness of the organization to support the proposed system. This is probably the most difficult of the feasibilities to gauge. In order to determine this feasibility, it is important to understand the management commitment to the proposed project. If the request was initiated by management, it is likely that there is management support and the system will be accepted and used.

We have made this to fulfill all the requirements of this project. This software could do all operational activities easily. We tried our best to make it best user friendly for the users.

Technical Feasibility-

A large part of determining resources has to do with assessing technical feasibility. It considers the technical requirements of the proposed project. The technical requirements are then compared to the technical capability of the organization. The systems project is considered technically feasible if the internal technical capability is sufficient to support the project requirements.

Economical Feasibility-

Economic analysis could also be referred to as cost/benefit analysis. It is the most frequently used method for evaluating the effectiveness of a new system. In economic analysis the procedure is to determine the benefits and savings that are expected from a candidate system and compare them with costs.

Problem Statement:

Online book reading management systems are used to store books but necessitate a system to browse to a specific book or specific material inside a book. A library database system is an architecture that enables users to search books, book information, read the book and exchange any book. The problem faced is that library users require an efficient method to find a specific book or keyword(s) within a book given a continuously expanding library. Efficiency requires that the processing time should stay relatively the same even as the library contents increases.

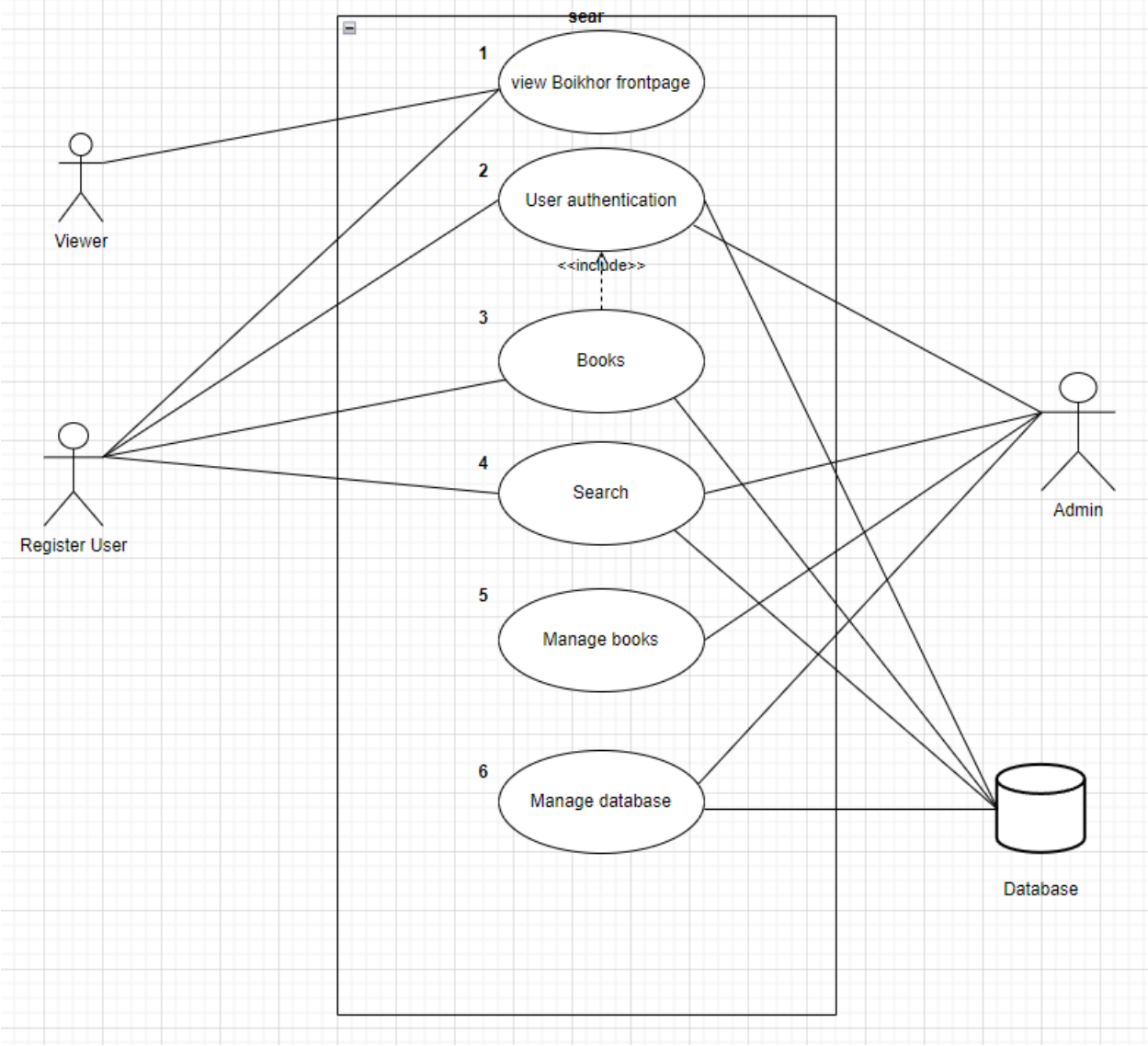
Proposed System:

A database was created providing Admin with the capability to add books to the library. The books are then categorized into ‘BoiKhor’. A user can then read the titles of books which is stored in the ‘BoiKhor’. Most importantly, a query function is available to search the book titles and book content data within the library database. The query function enables a reader to search for specific keywords contained in books. A reader can then select and read a desired book from the library database, allowing them to consume books on demand.

Use Case Design:

Here is our use diagram, it has three level and three actors. The below diagram shows us the proper workflow our Online book reading management systems.

Full Diagram:



Level-0

Figure 1: Online book reading management systems

Use Case description-

Use Case: Authentication
Goal in context: Login to 'BoiKhor'
Precondition:
Success and condition: Successfully log in to 'BoiKhor'
Failed and condition:
Primary Actors: Registered User
Secondary Actor: Admin, Permanent Database
Trigger: registered user needs Email Id to sign into 'BoiKhor'
Description: User need email Id then they can sign up with a strong password. Then they can sign up into BoiKhor.

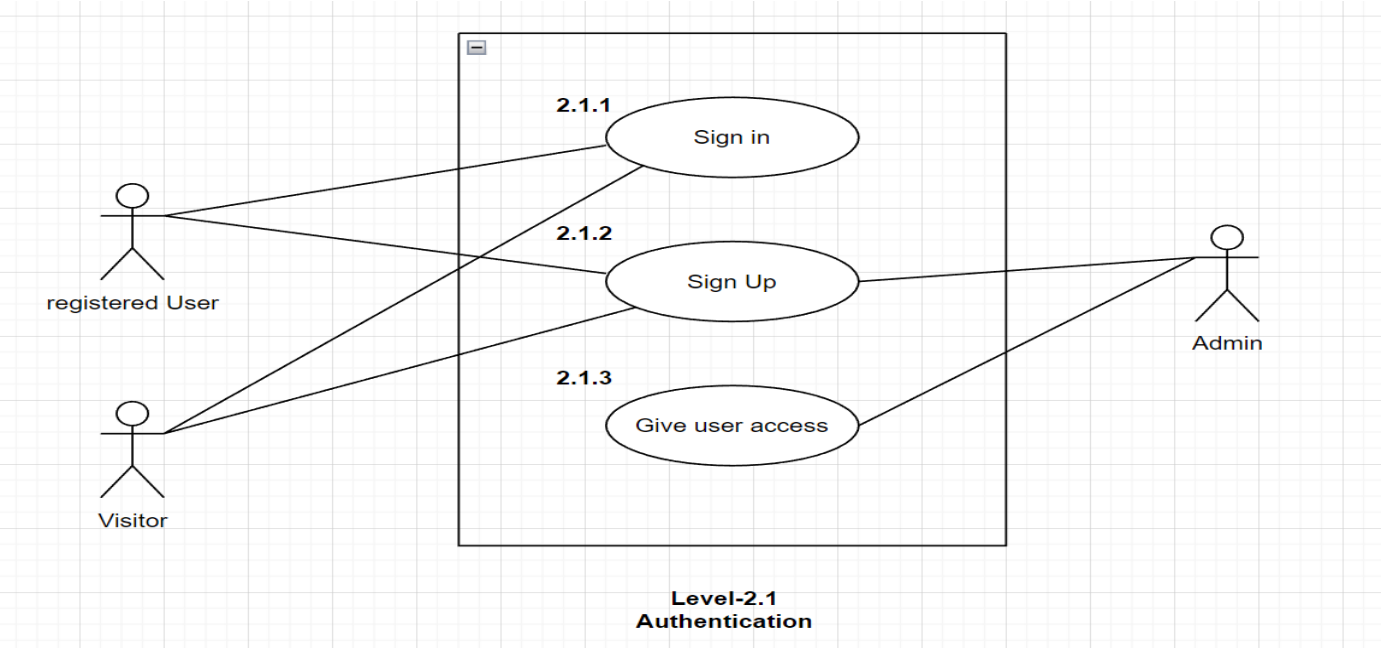


Figure 2: Use-case Diagram for Authentication

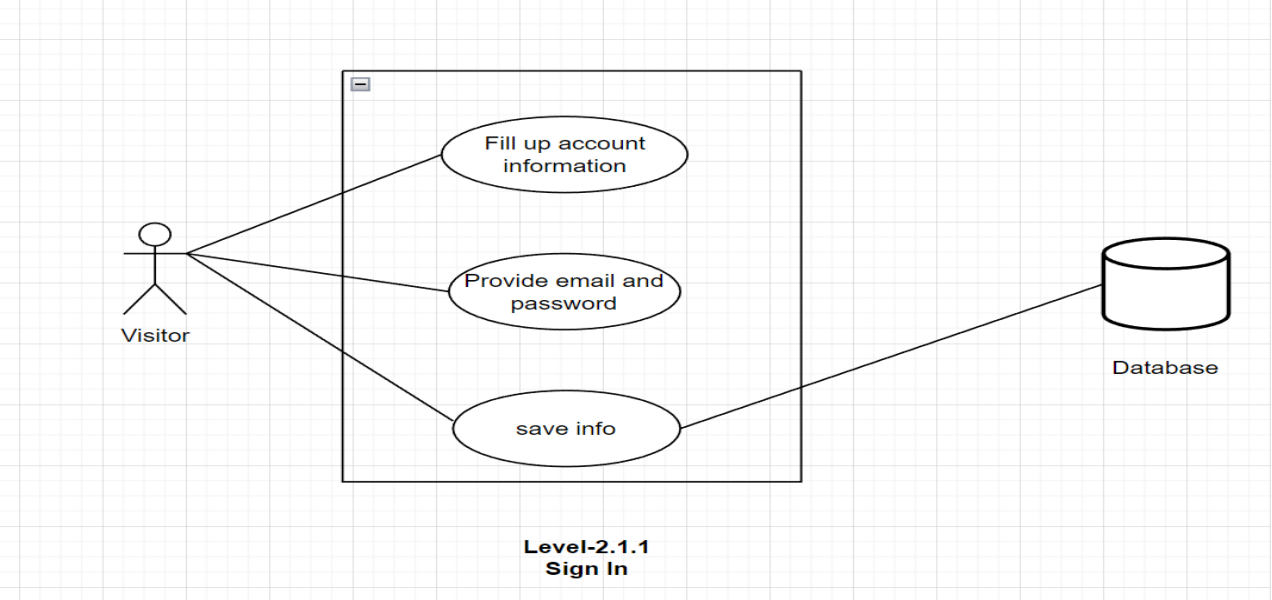


Figure 3: Use-case Diagram for Sign in

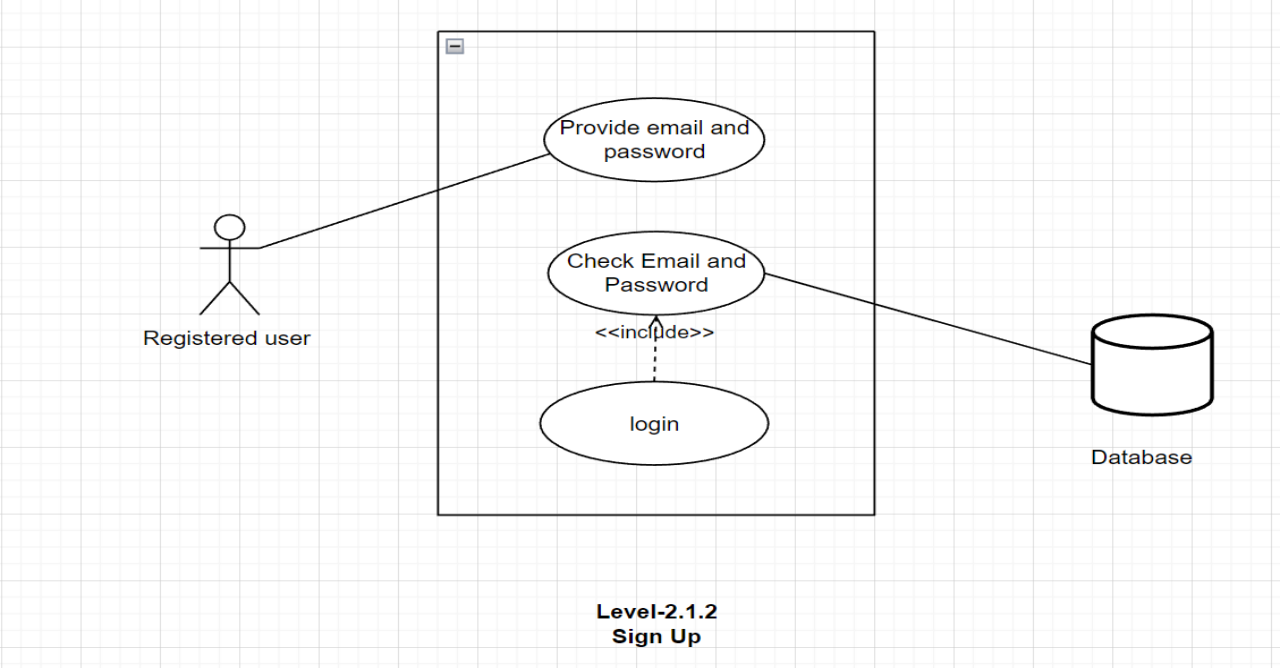


Figure 4: Use-case Diagram for Sign Up

Use Case: books
Goal in context: Read and Exchange books
Precondition: Need to sign up into 'BoiKhor'
Success and condition: User can read any books and can exchange books.
Failed and condition:
Primary Actors: Registered User
Secondary Actor: Admin, Permanent Database
Trigger:
Description: After Successfully login User can read any available books and they can request 'BoiKhor' authority to manage any kind of books. User can also exchange any books with 'BoiKhor'

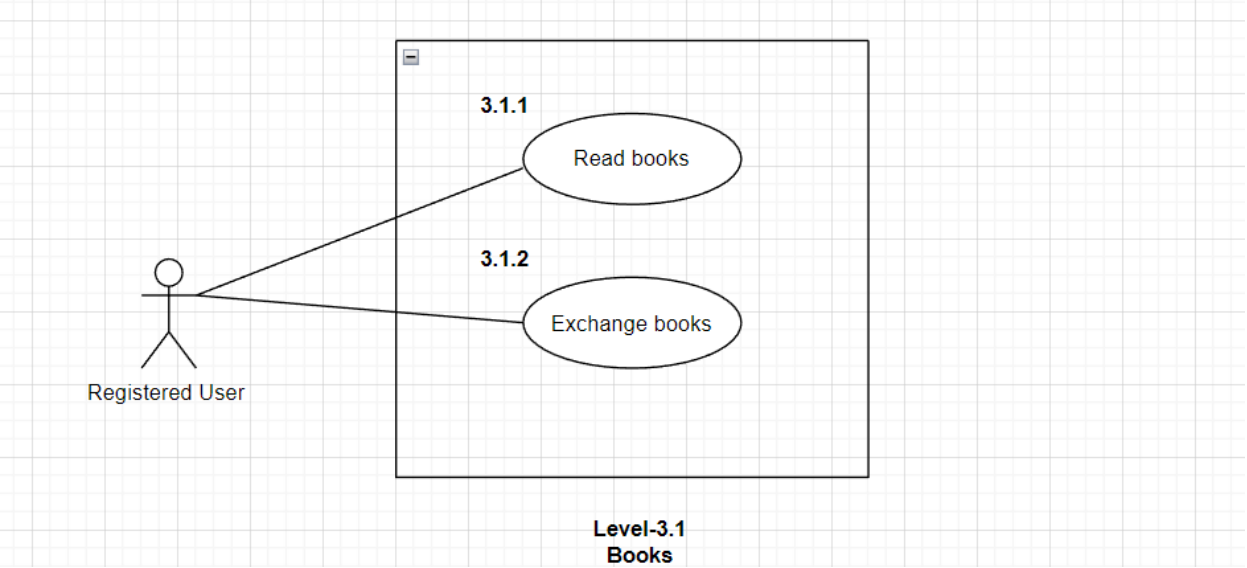


Figure 5: Use-case Diagram for Books

Use Case: Manage books
Goal in context: Add and delete books
Precondition: Have to part of 'BoiKhor' admin authority
Success and condition: Admin can add and delete any kind of books in 'BoiKhor'
Failed and condition:
Primary Actors: Admin
Secondary Actor: Permanent Database
Trigger:
Description: Admin can add and delete any books and update the database. Admin can send confirmation message to user if requested books is available or not in 'BoiKhor'.

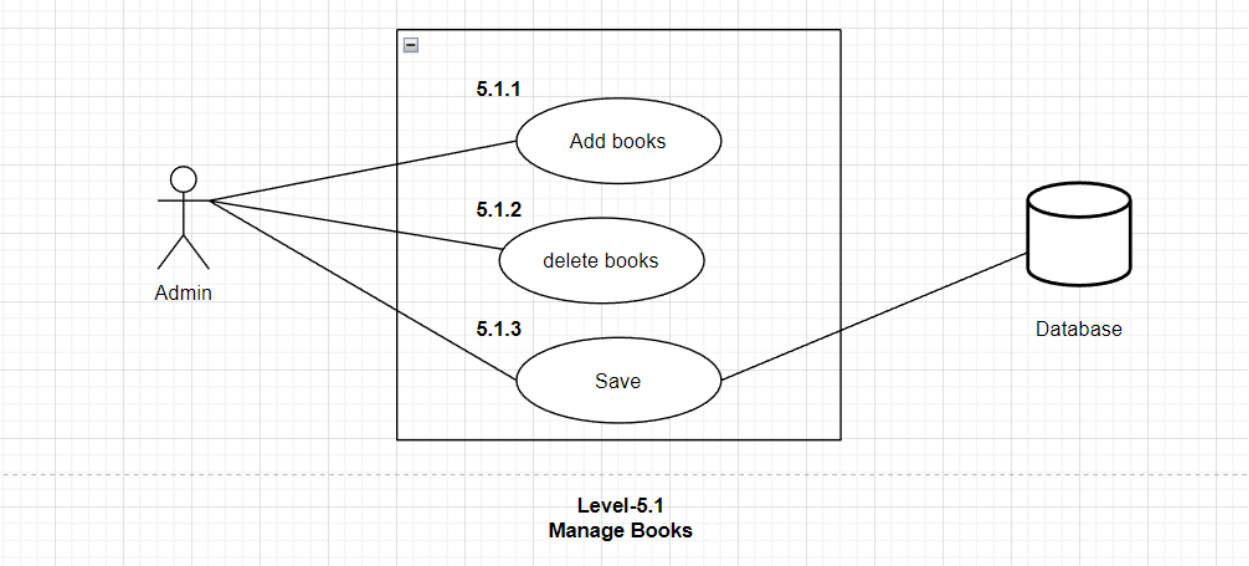
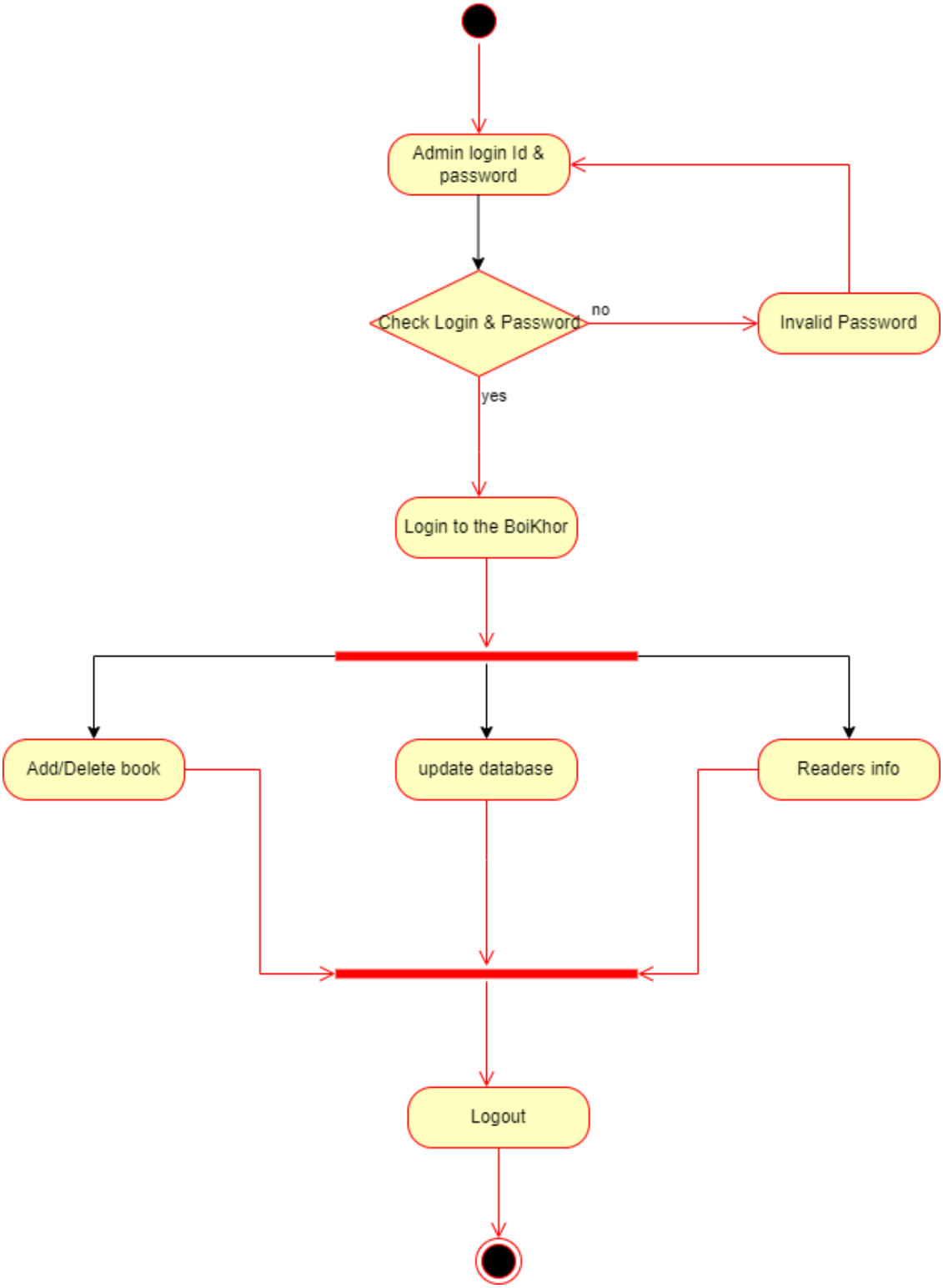


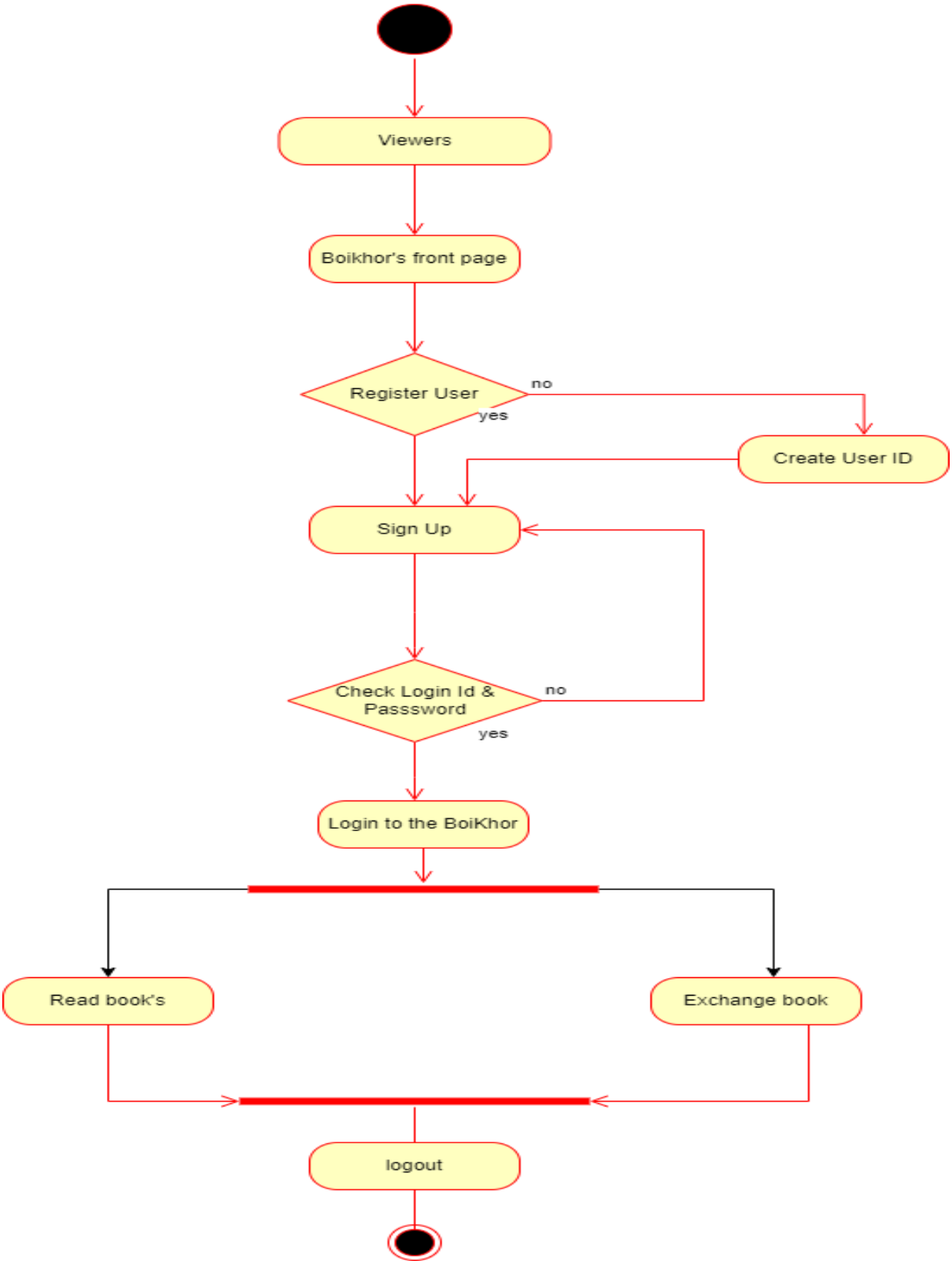
Figure 6: Use-case Diagram for Manage Books

Activity diagram:

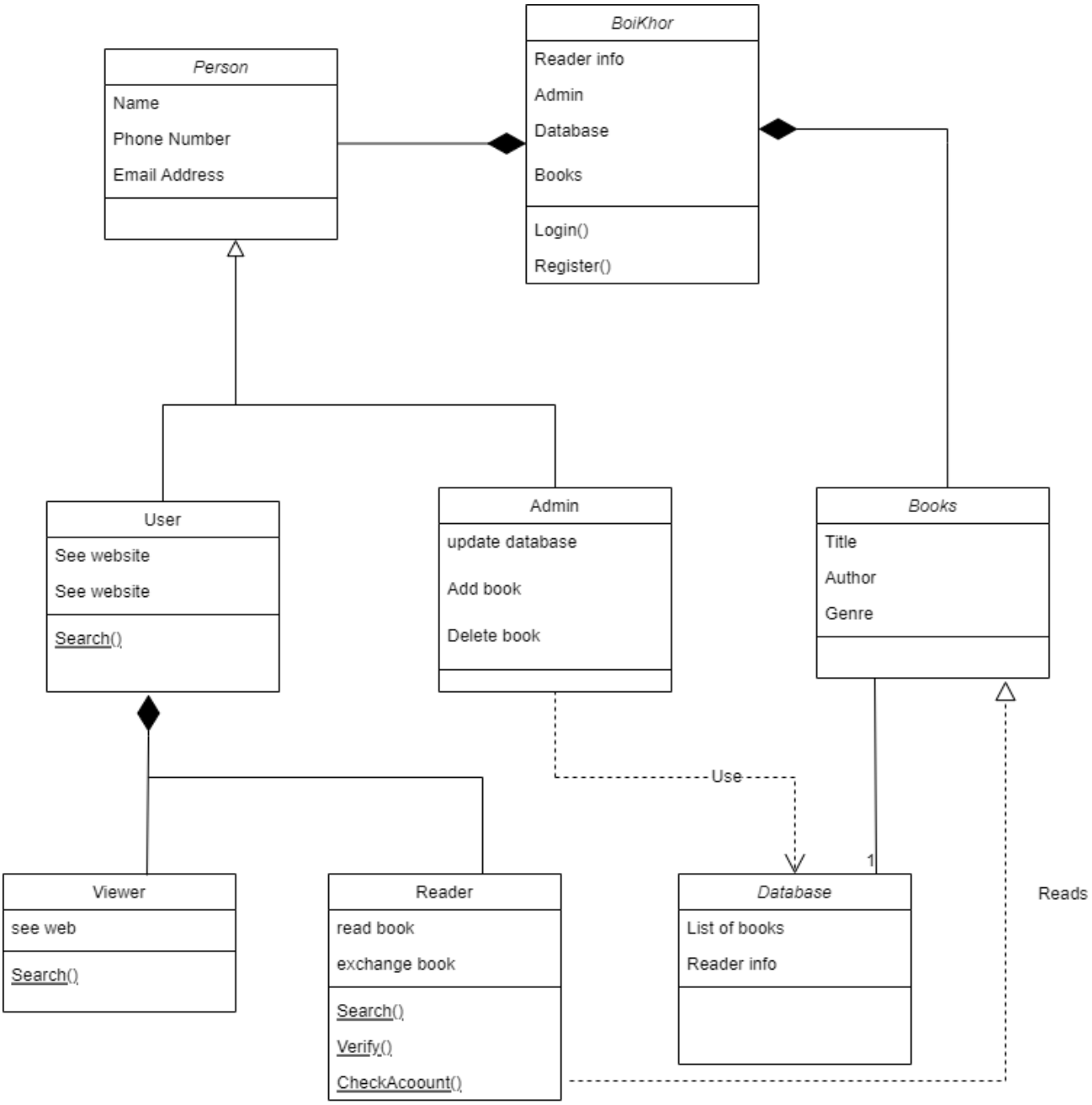
Here is our activity diagram for admin-



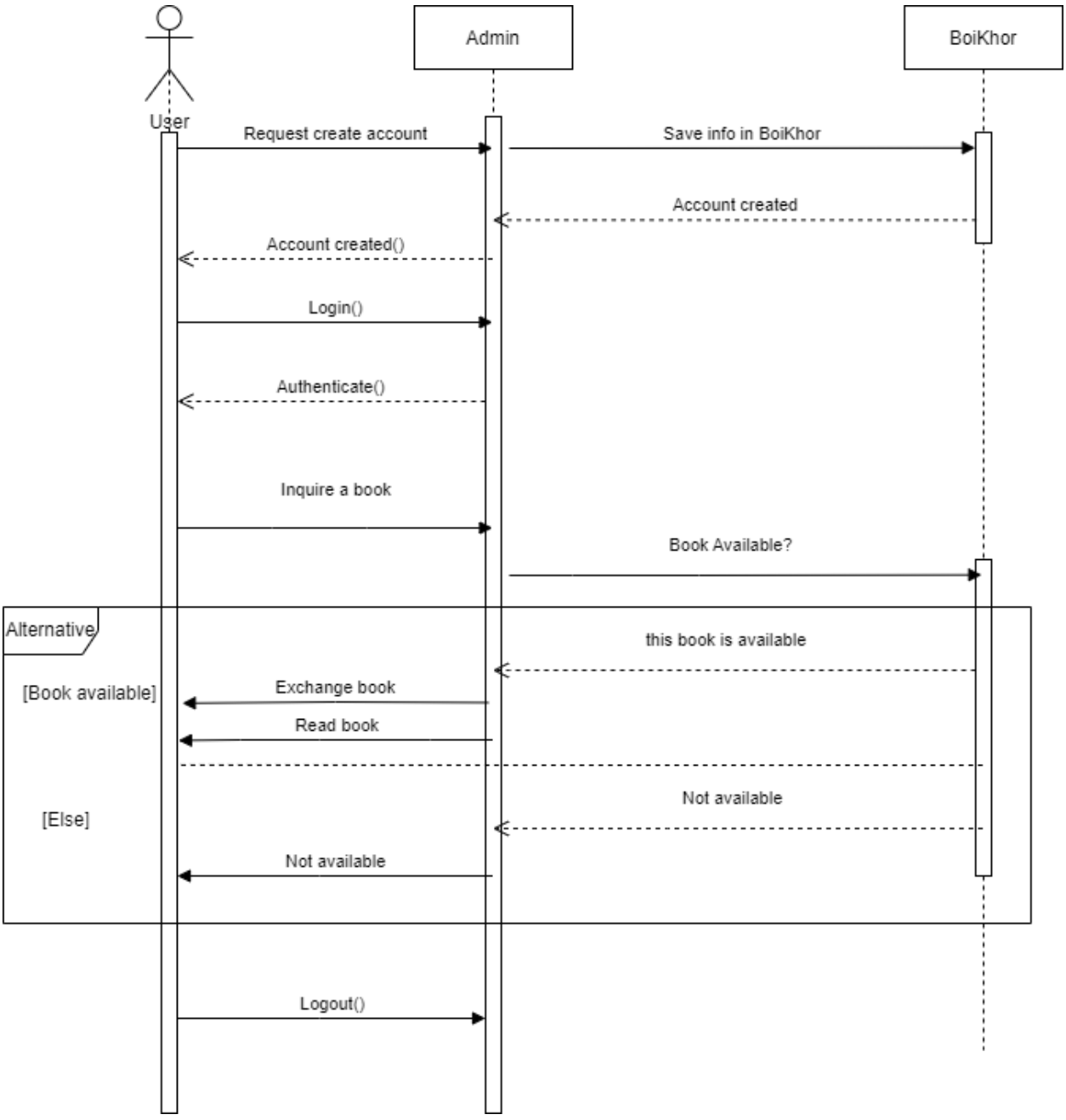
Here is our activity diagram for user-



Class Diagram:



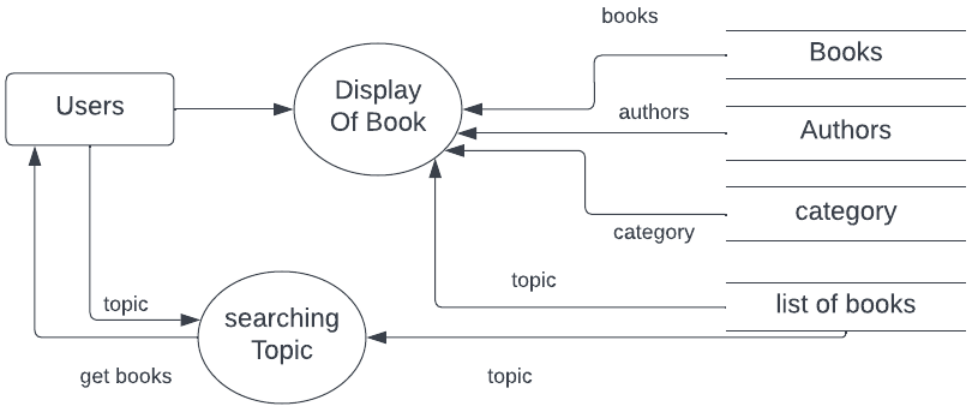
Sequence Diagram:



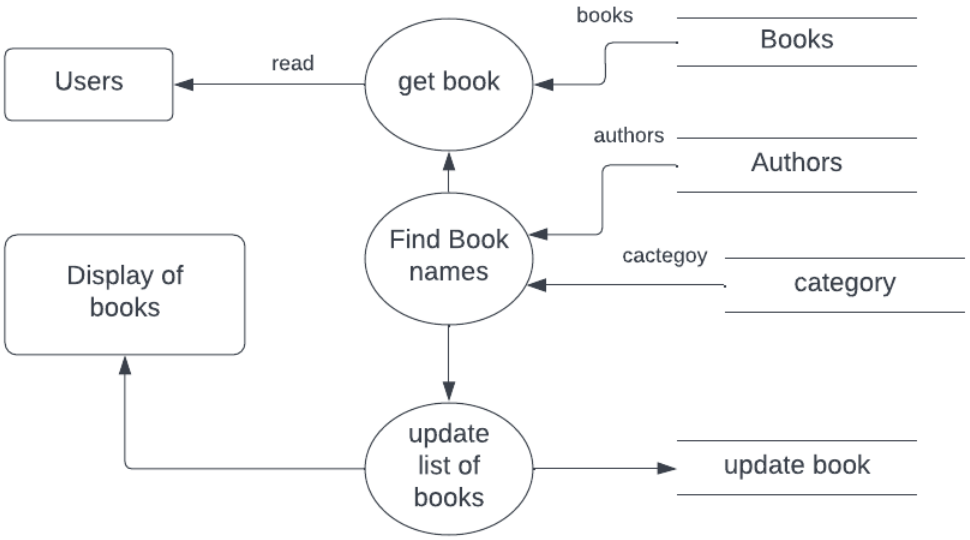
Data flow diagram:

Level-0 :

Level-1 :

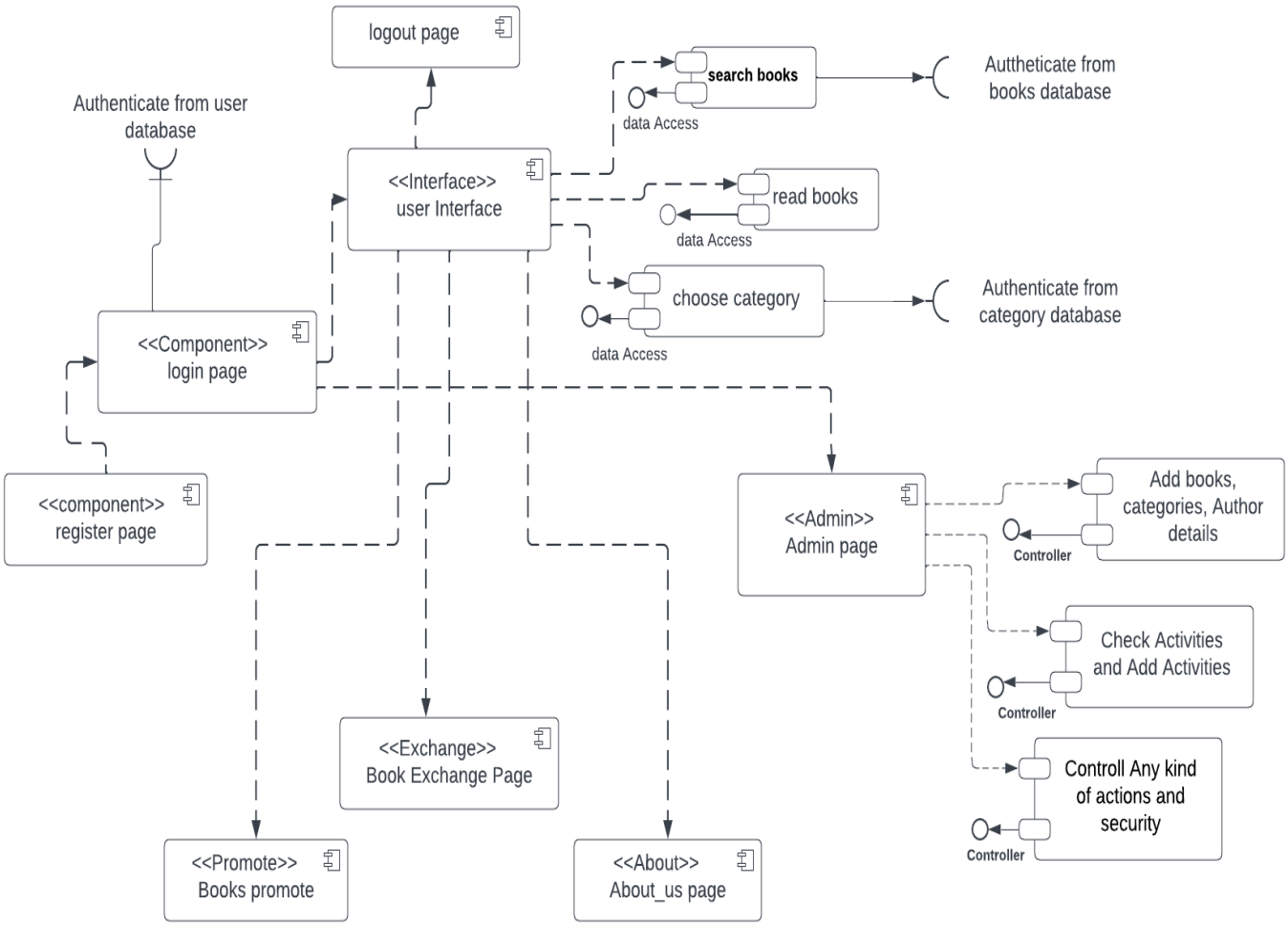


Level-2 :

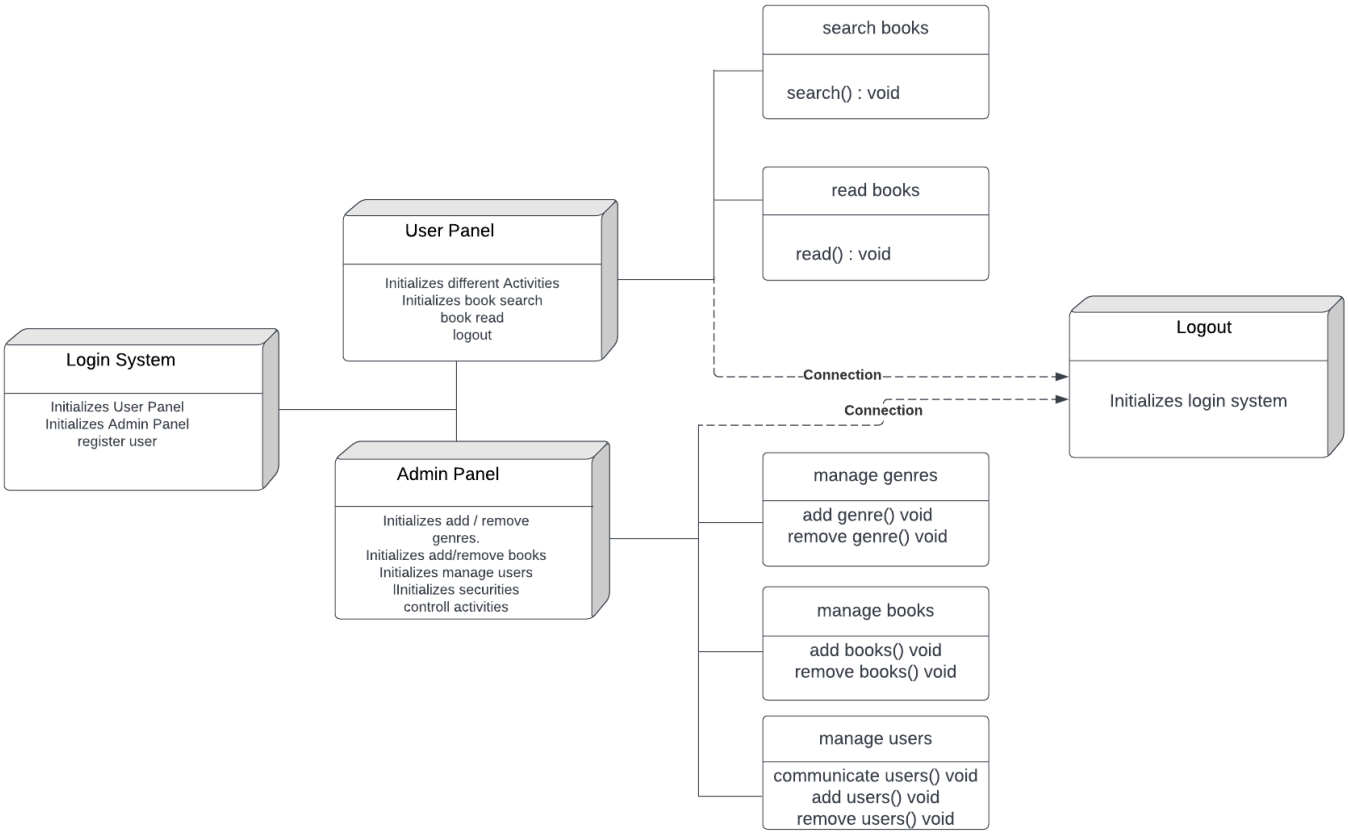


Component diagram:

Here is Our Component diagram:



deployment diagram:



Conclusion:

This project primarily focuses on how we can enhance the traditional way that libraries operate because the usual way involves doing everything by hand, which is cumbersome, inefficient, unsafe. A digital library management system, which handles all the labor by automating it, is the answer to this problem. We try to keep our project easy, comfortable and user friendly so that user can access learning material for a smooth learning process.