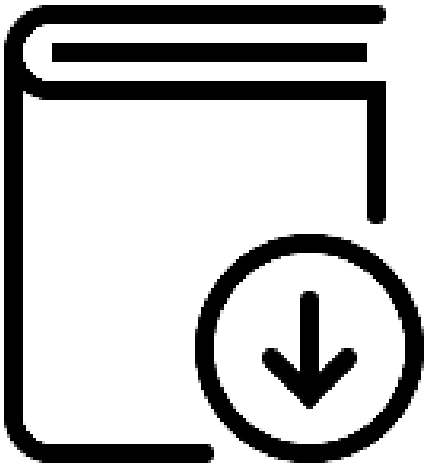
LAURENT Sacha – SIMON Eliot

BooknBorrow

Book-borrowing Management



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Project presentation

BooknBorrow book-borrowing Management

Website for book-borrowing. BooknBorrow is a platform for users to borrow books from multiple libraries and keep records of their readings and eventual fines if they bring back books too late.

Members

- LAURENT Sacha
- SIMON Eliot

Database diagrams

Entity-relationship diagram

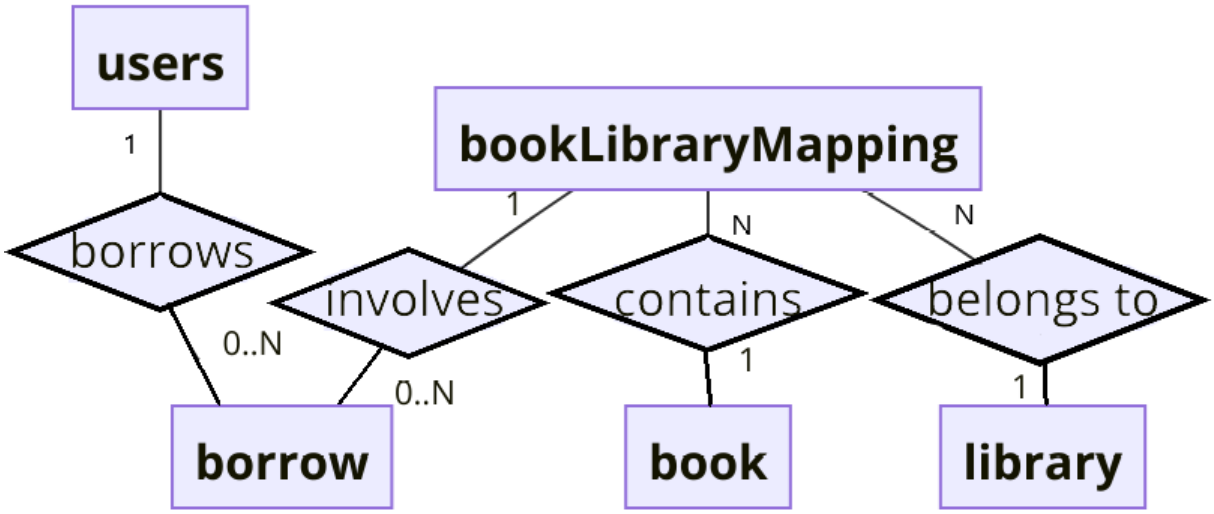
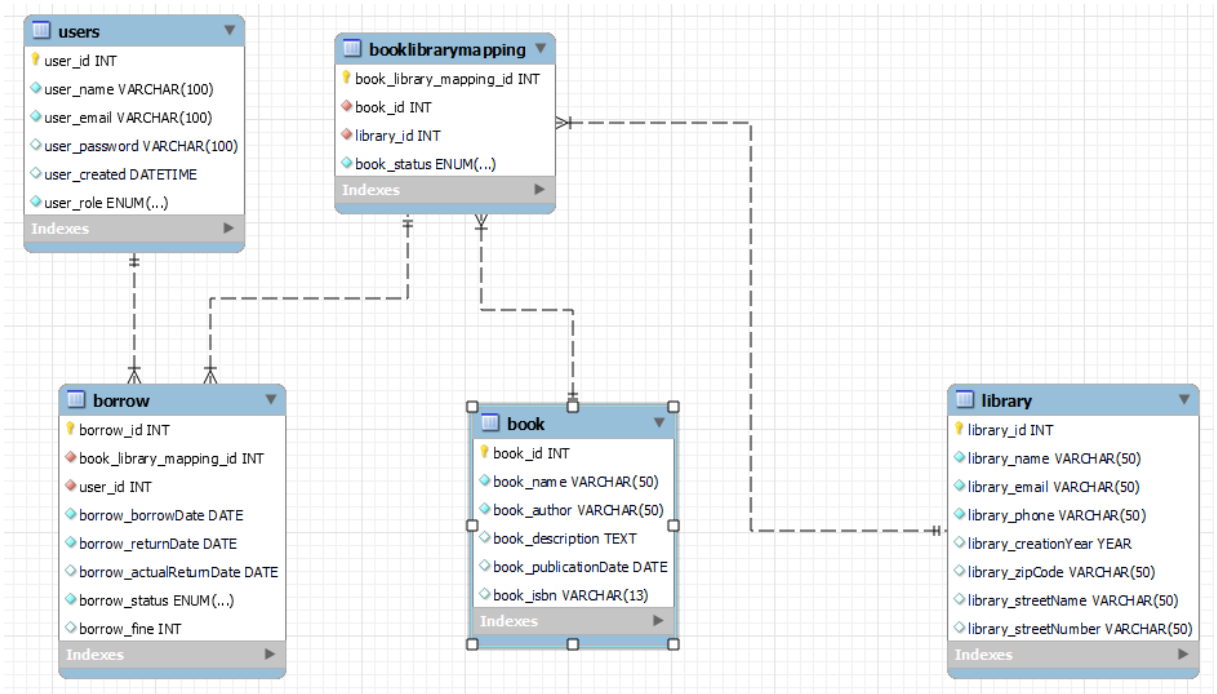
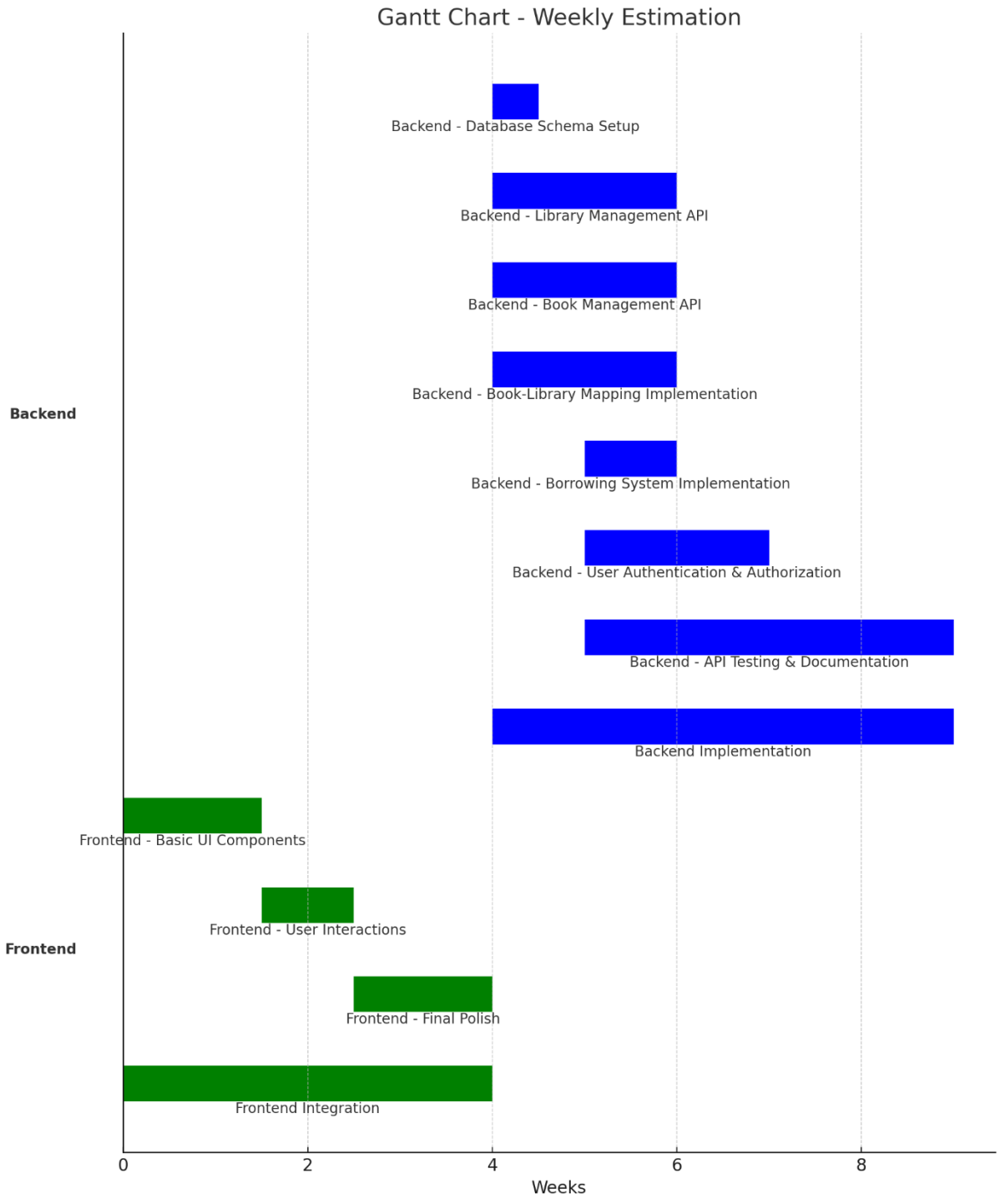


Table structure diagram

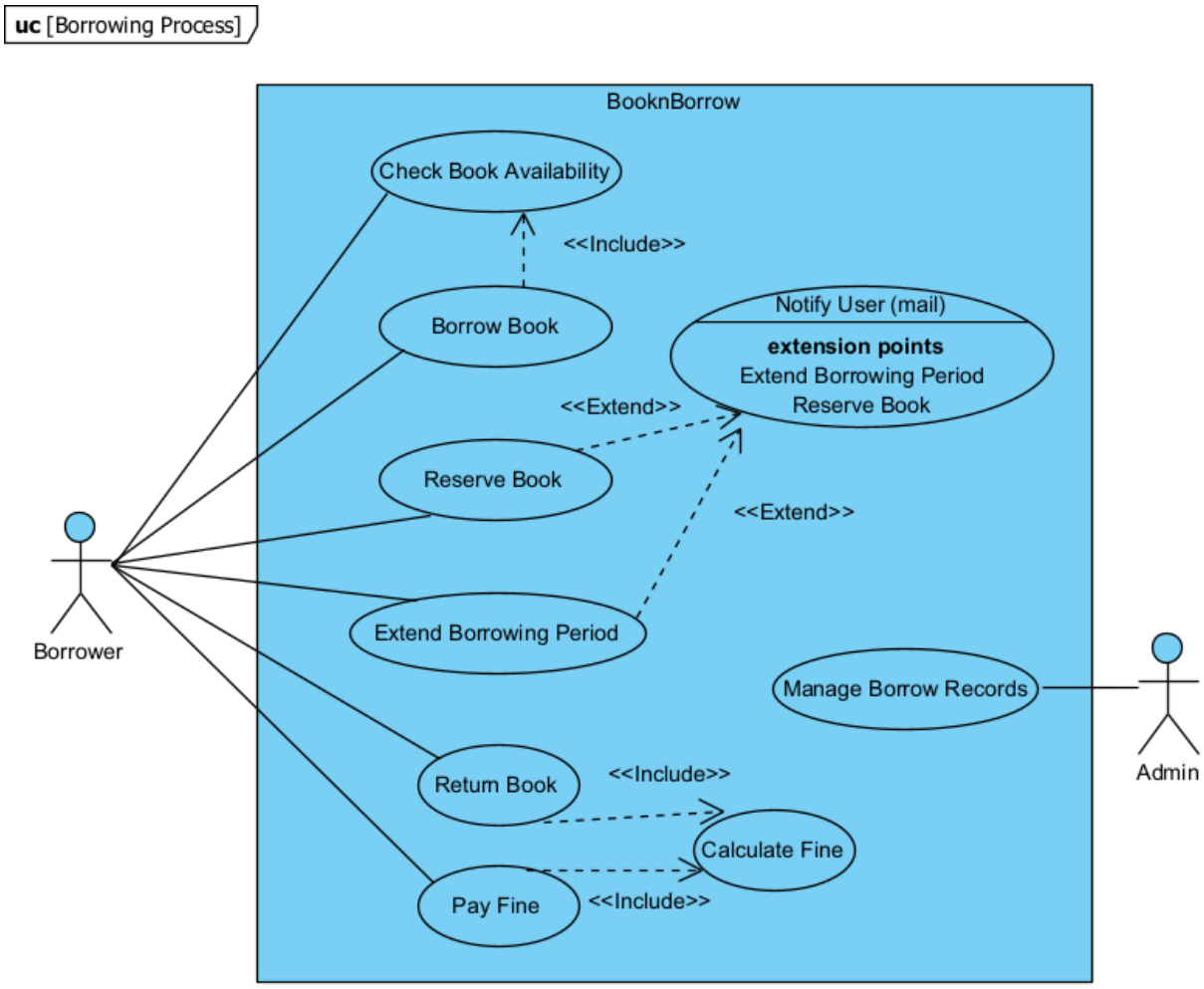


Planned gantt diagram



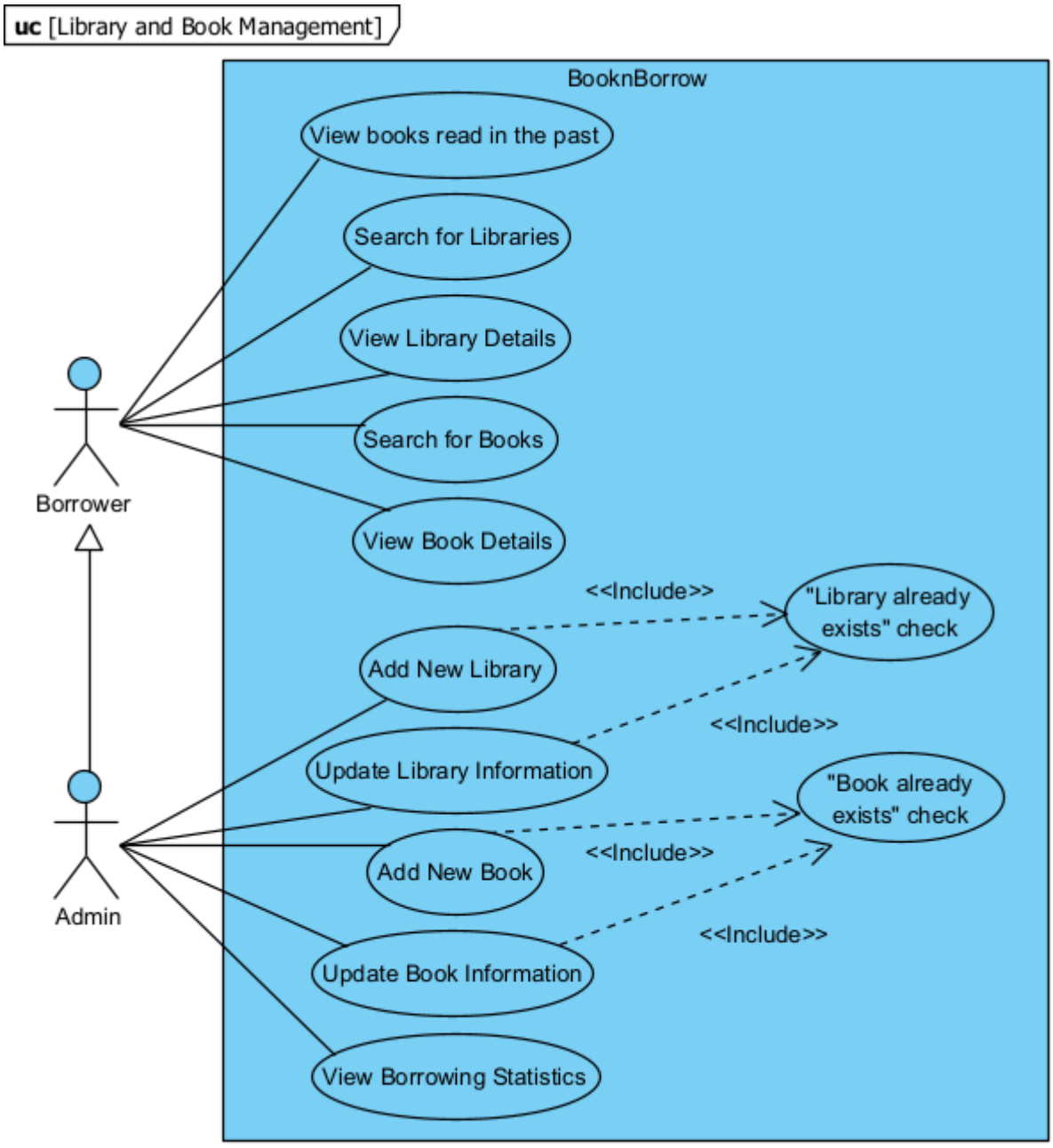
Use case diagrams

Borrowing Process Use Case Diagram



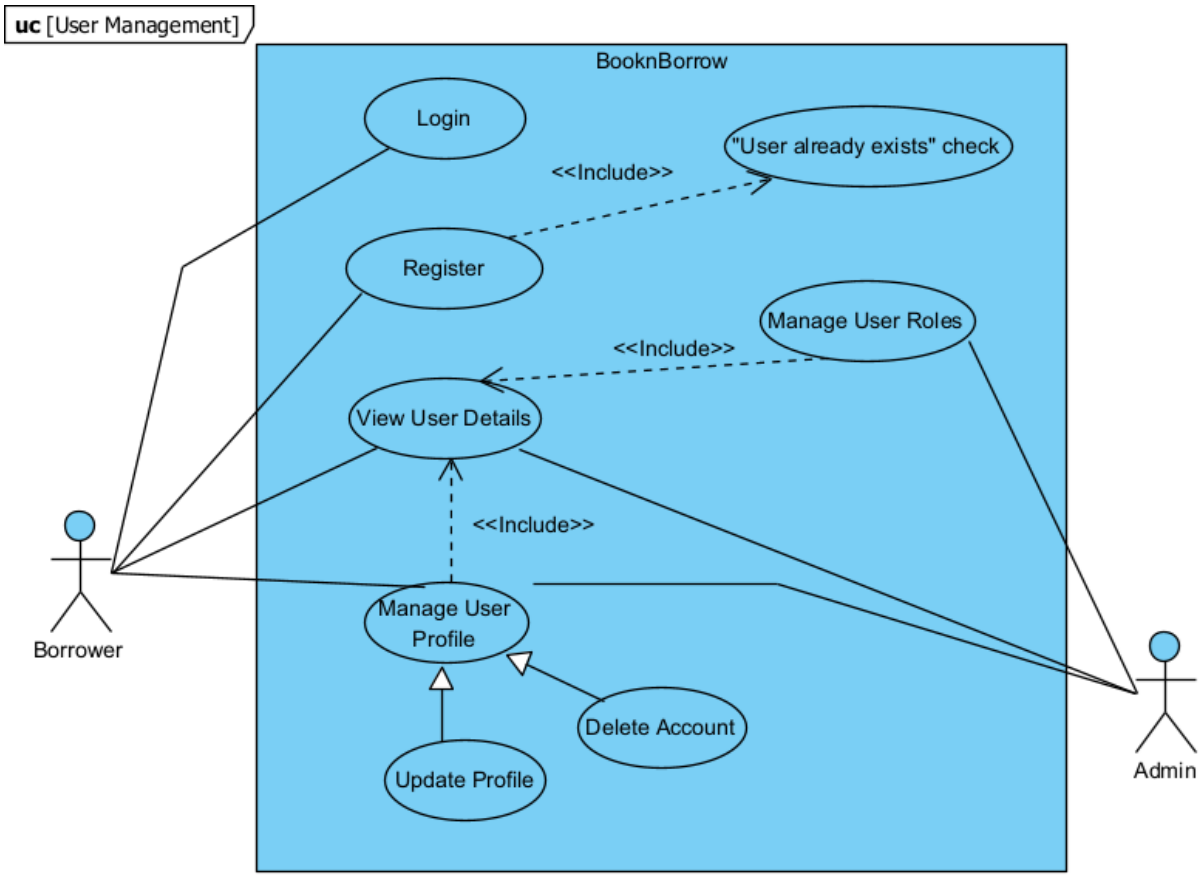
- **Actors**: User, Admin
- **Use Cases**: Borrow Book, Reserve Book, Return Book, Check Book Availability, Extend Borrowing Period, Pay Fine (User), Manage Borrow Records (Admin).

Library and Book Management Use Case Diagram



- **Actors**: Admin, User
- **Use Cases**: Add New Library (Admin), View Library Details, Add New Book (Admin), View Book Details, View books read in the past, Update Book Information (Admin), Update Library Information (Admin), Search for Books, Search for Libraries, View Borrowing Statistics (Admin).

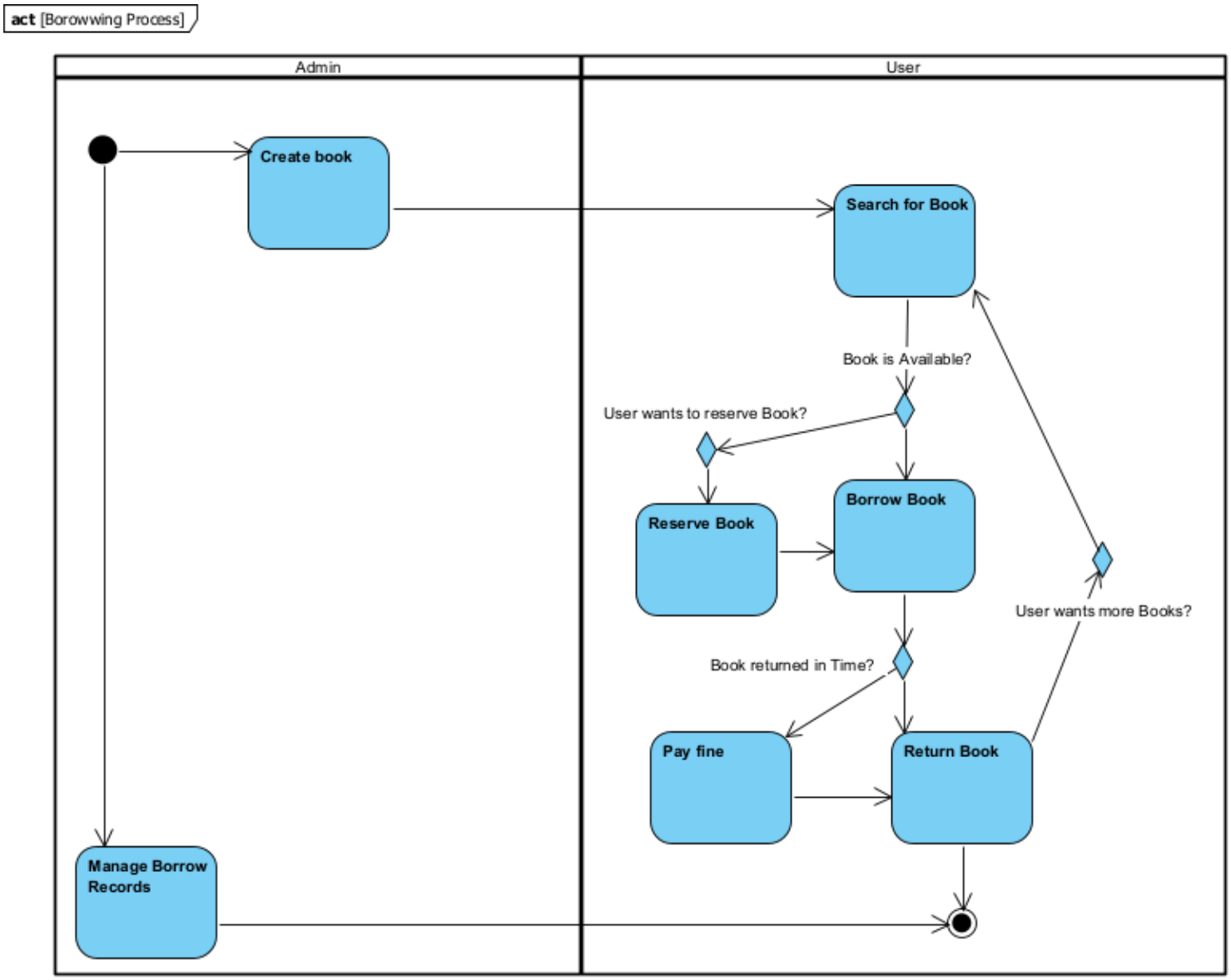
User Management Use Case Diagram:



- **Actors**: Admin, User
- **Use Cases**: Register, Login, Update Profile, View User Details, Manage User Roles (Admin only), Delete Account, Manage Users (Admin only).

Activity diagram

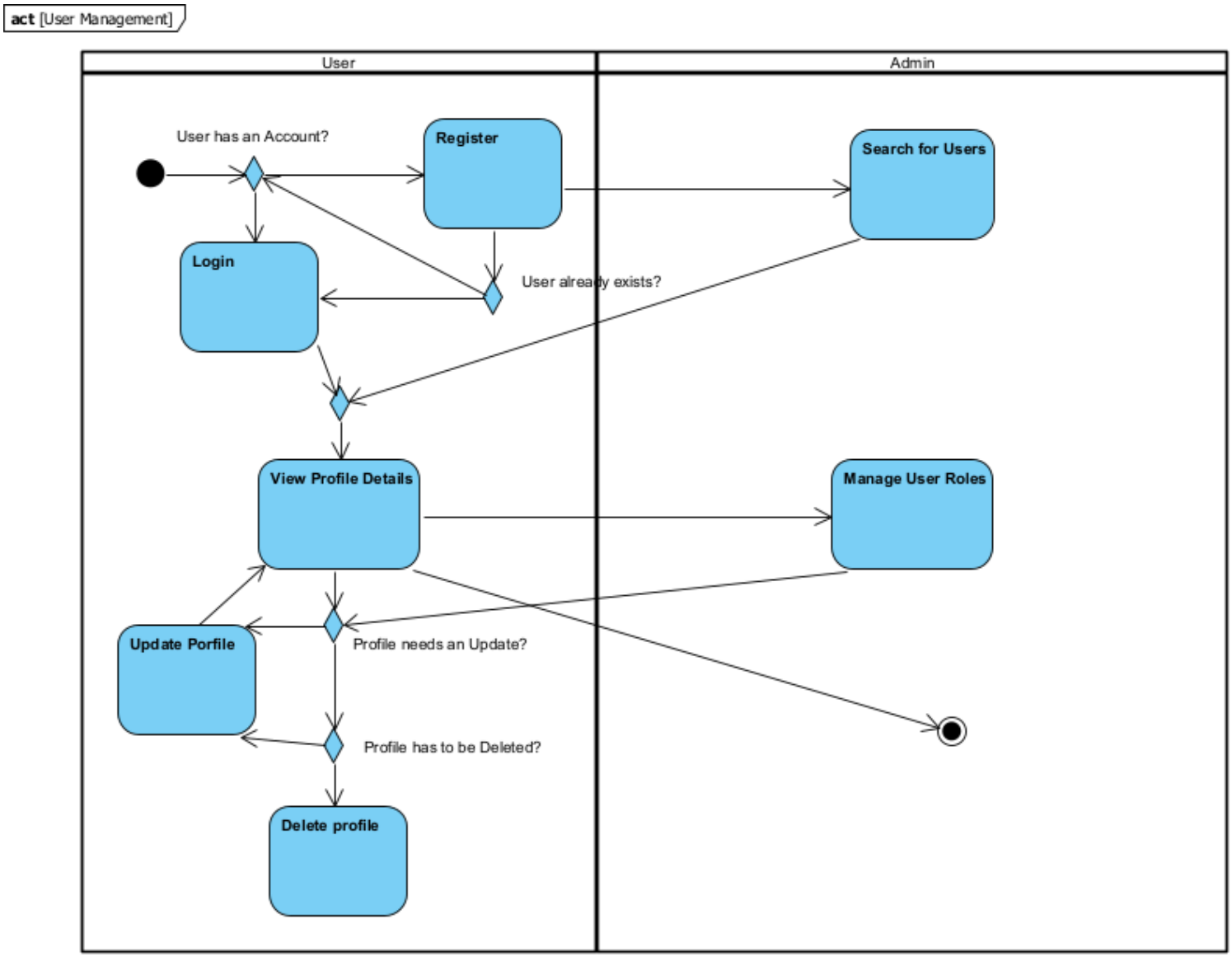
Borrowing Process



Actors: Admin, User

The Admin can initiate the process by creating a new book entry, which becomes accessible to the User for searching and borrowing. The User starts by searching for a book. If the book is available, the User can choose to borrow it or reserve it if needed. Once borrowed, the User must return the book on time. If returned late, a fine is imposed. The process also allows the User to borrow additional books after completing a transaction. Finally, the Admin manages the borrowing records to complete the process.

User Management



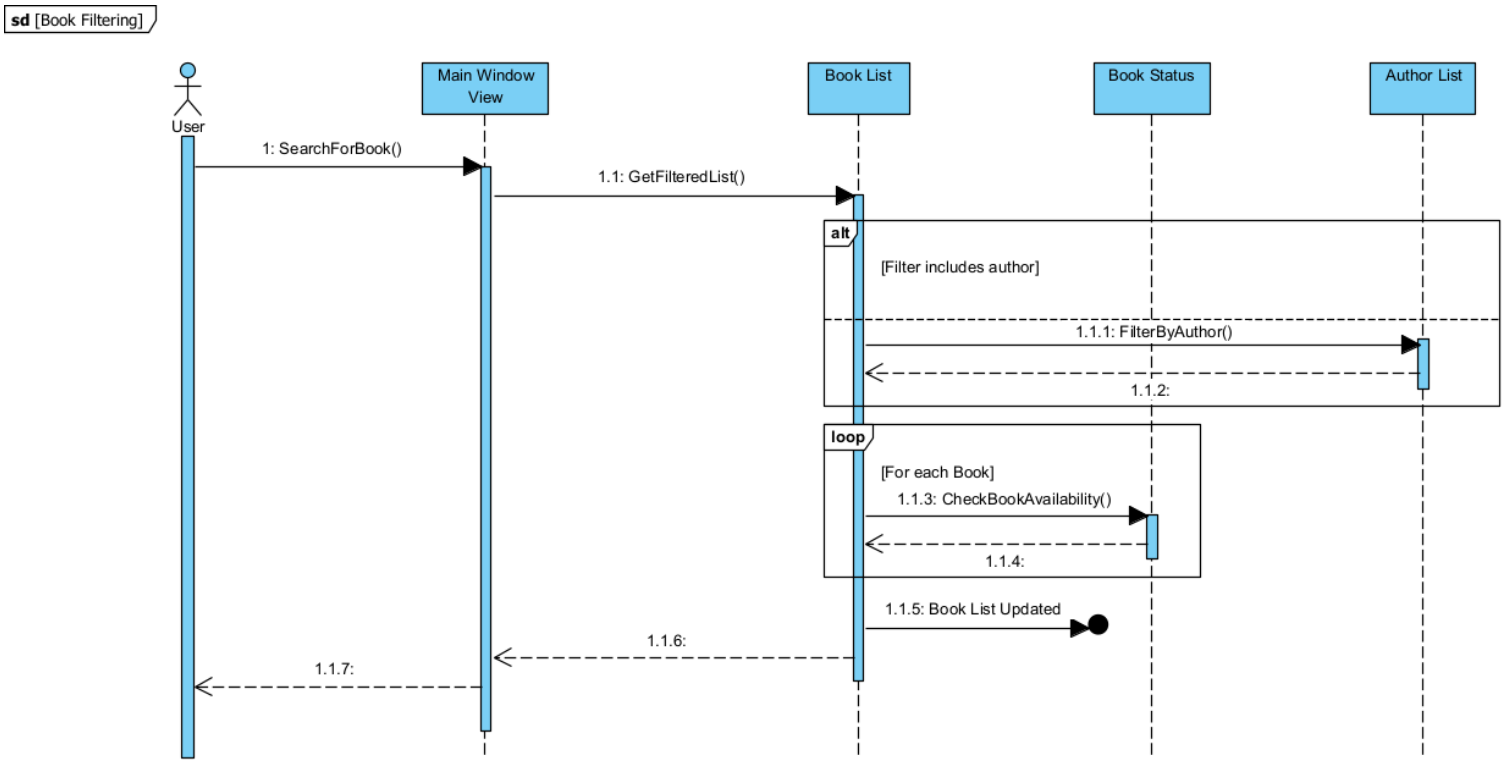
Actors: Admin, User

For Users, the process begins by checking if they already have an account. If they don't, they are prompted to register. If an account exists, they proceed to log in. Once logged in, the User can view their profile details. If necessary, the profile can be updated or deleted, depending on the User's needs.

On the Admin side, they can search for users and manage user roles, ensuring proper access control within the system. The diagram shows the various pathways that can be followed depending on the User's actions, such as updating or deleting their profile, while also illustrating the admin's ability to oversee user roles and account management.

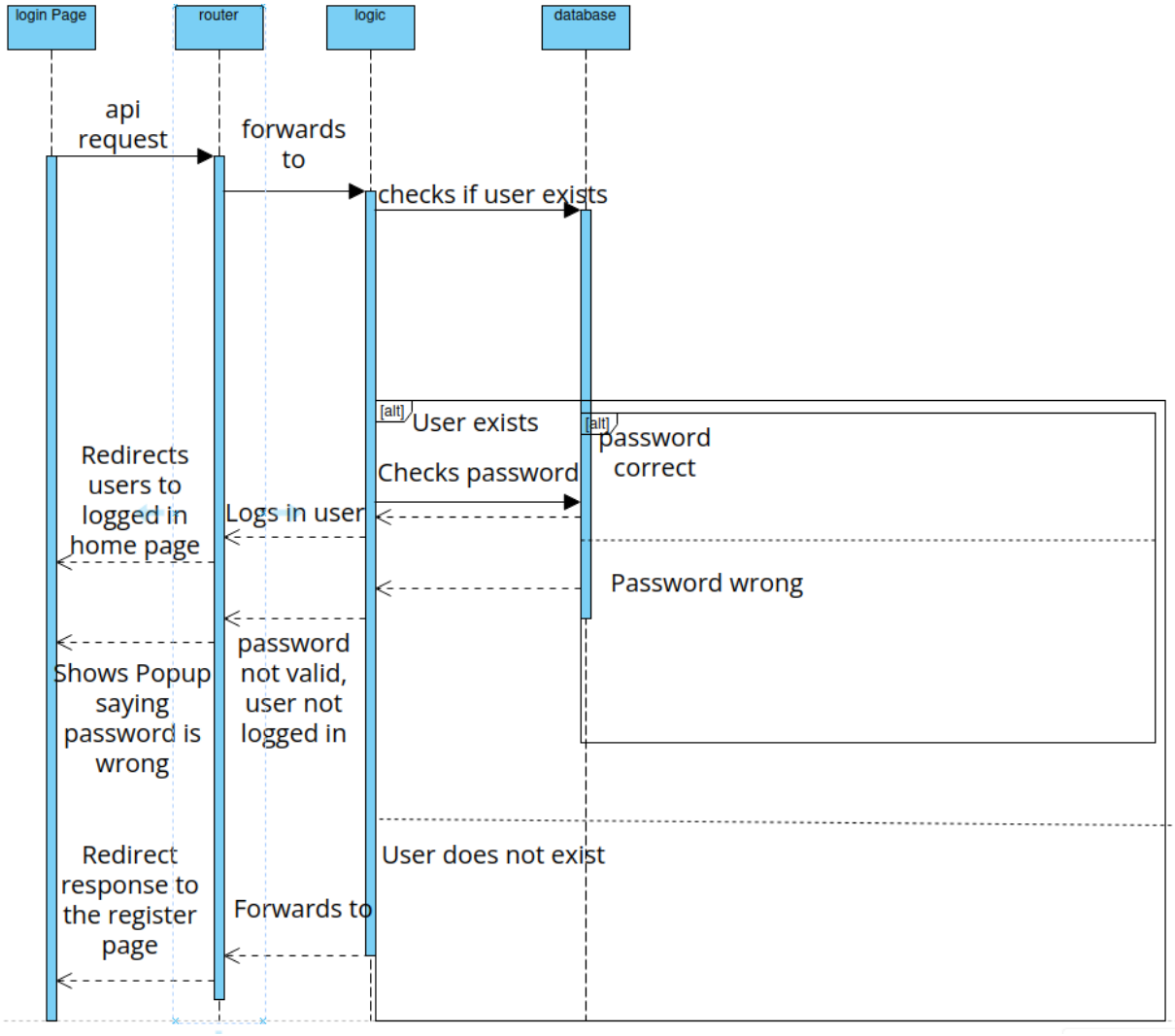
Sequence diagrams

Book Filering



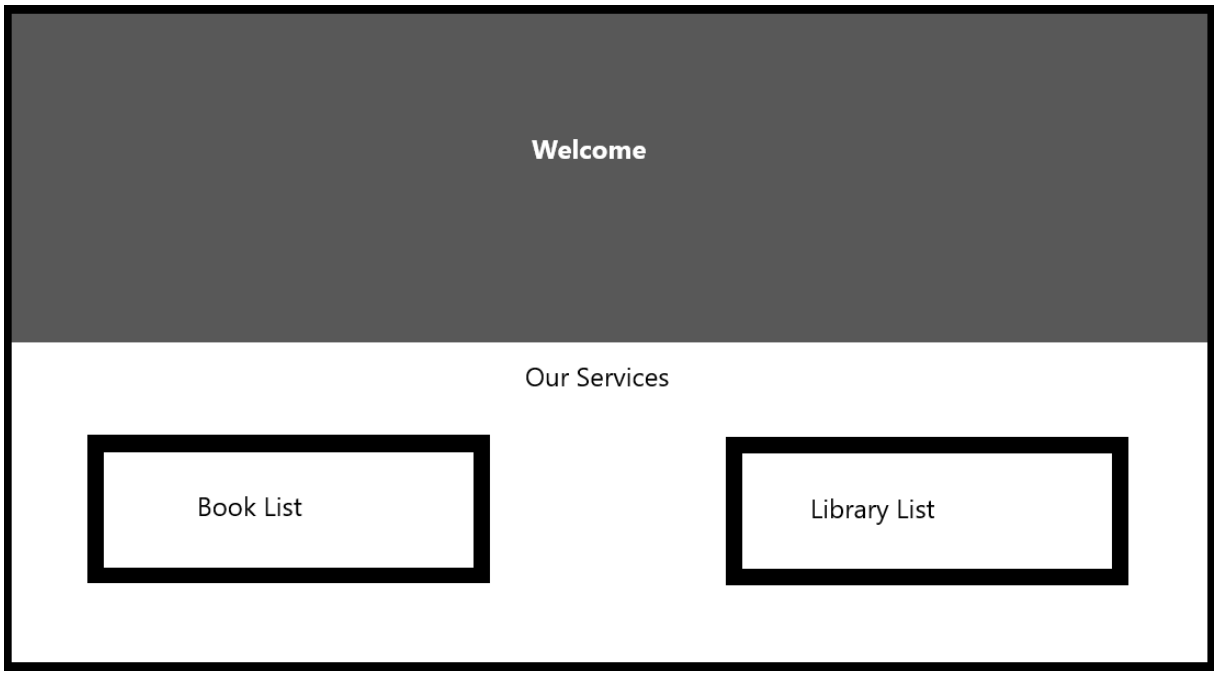
The Sequence begins with the User initiating a SearchForBook() request in the Main Window View. The Main Window View then sends a request to retrieve a filtered list of books (GetFilteredList()) to the Book List component. If the filter criteria include an author, the Book List interacts with the Author List to apply FilterByAuthor(), updating the list accordingly. Once filtered, the Book List updates, and the filtered list is returned back through the Main Window View to the User.

Login


login Page
router
logic
database
api request
forwards to
checks if user exists
[alt]
User exists
[alt]
password correct
Redirects users to logged in home page
Checks password
Logs in user
Password wrong
password not valid, user not logged in
Shows Popup saying password is wrong
User does not exist
Redirect response to the register page
Forwards to

Wireframe

Front page



Book list page