LIBRAIRIE DORO

BookShop — MySQL Project

Renaud Yoganathan, Max Dambron, Souhaib Sghaier

Object-Oriented Analysis & Design + Advanced Web Programming

Our Goal

Build a simple, normalized MySQL-backed website for discovering books, browsing by genre, and posting user reviews. This version adds a more detailed database structure and an entity-relationship model to illustrate our design choices

ER Diagram

The ER diagram shows how the main entities are connected:

•	Book is the central entity.

•	Each Book is written by one Author, published by one Publisher, and written in one Language.

•	A Book can belong to several Genres through the link table Book_Genre.

•	Users can post Reviews about different books.

•	Relationships are mainly one-to-many, except Book ↔ Genre, which is many-to-many.
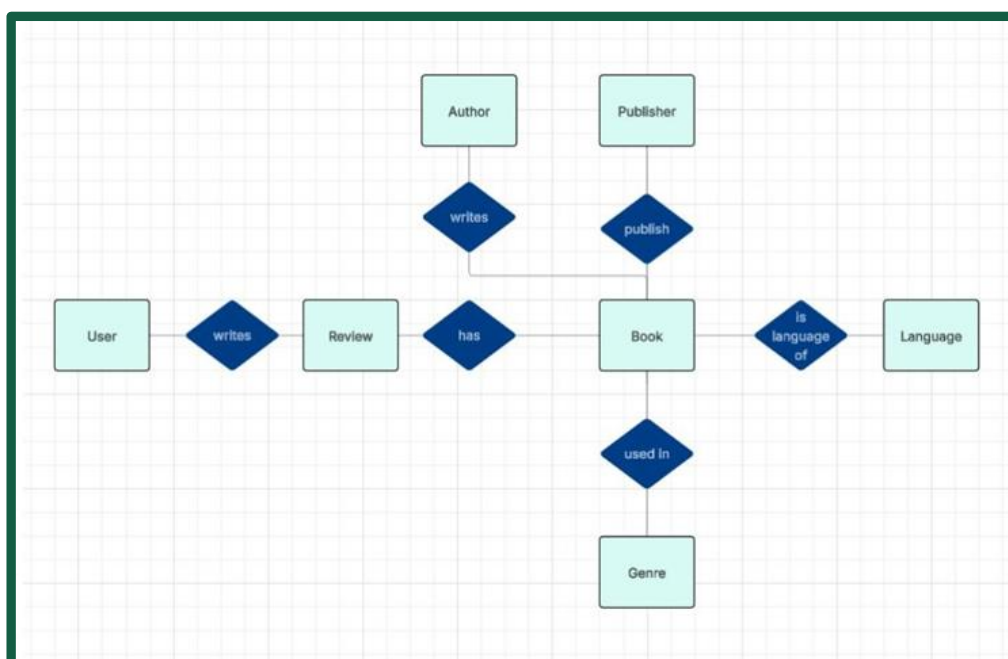
Table Structure Description

The diagram represents the logical structure of the database used for the book application. The goal was to design a simple, normalized model where each entity has a clear and unique purpose.
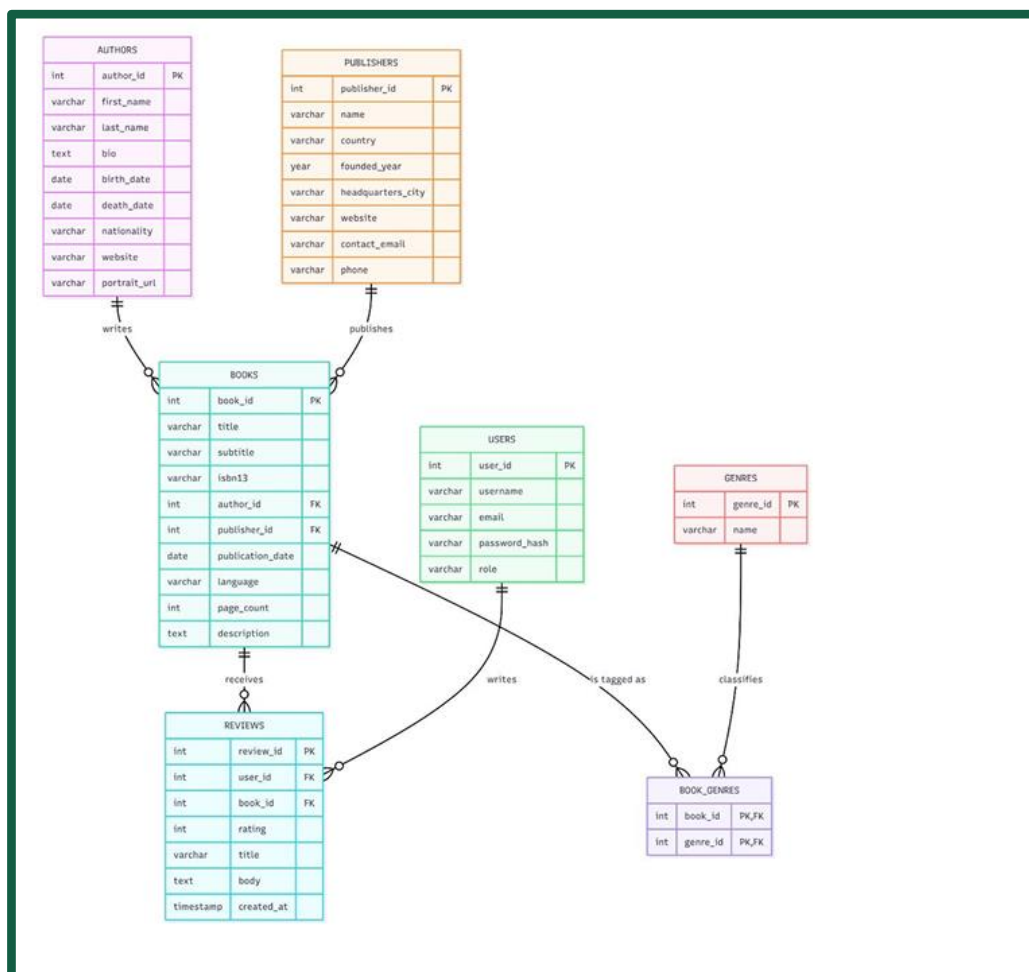
The **Books** table is the central element of the model. Each book is written by one **Author** and published by one **Publisher**, which explains the *one-to-many* relationships between these tables — one author or publisher can be linked to several books.

The **language** field was integrated directly inside the Books table to simplify the design and avoid an unnecessary extra table.

Users are represented in the Users table and can write multiple **Reviews**; each review being related to a single book.
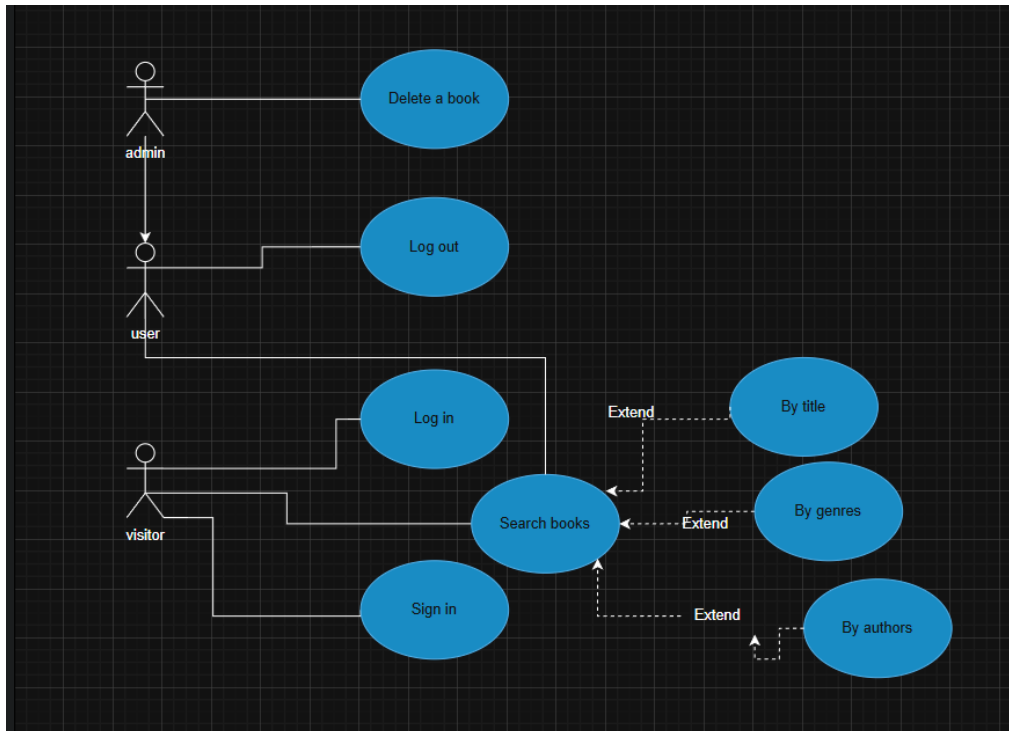
 This creates a one-to-many relation between *Users → Reviews* and *Books → Reviews*.

Books can also belong to several **Genres**, and each genre can contain multiple books. This *many-to-many* relation is managed by the associative table **Book_Genres**, ensuring flexibility when classifying books.
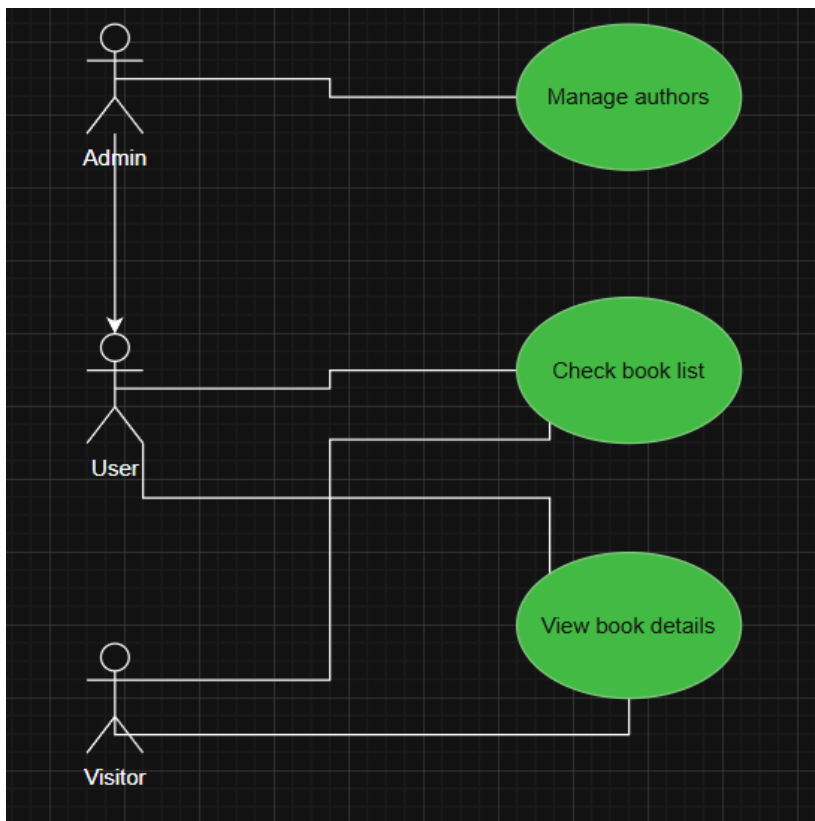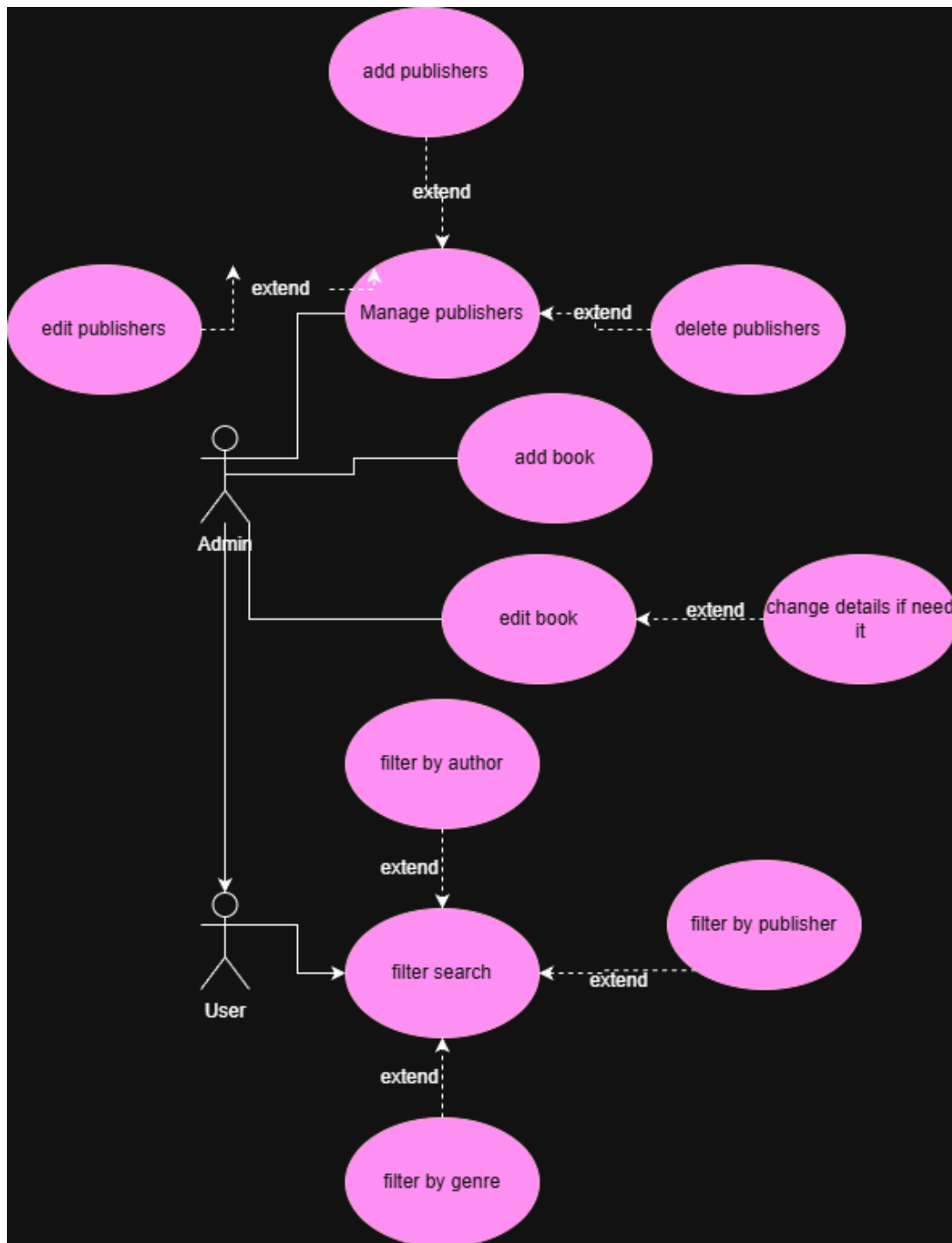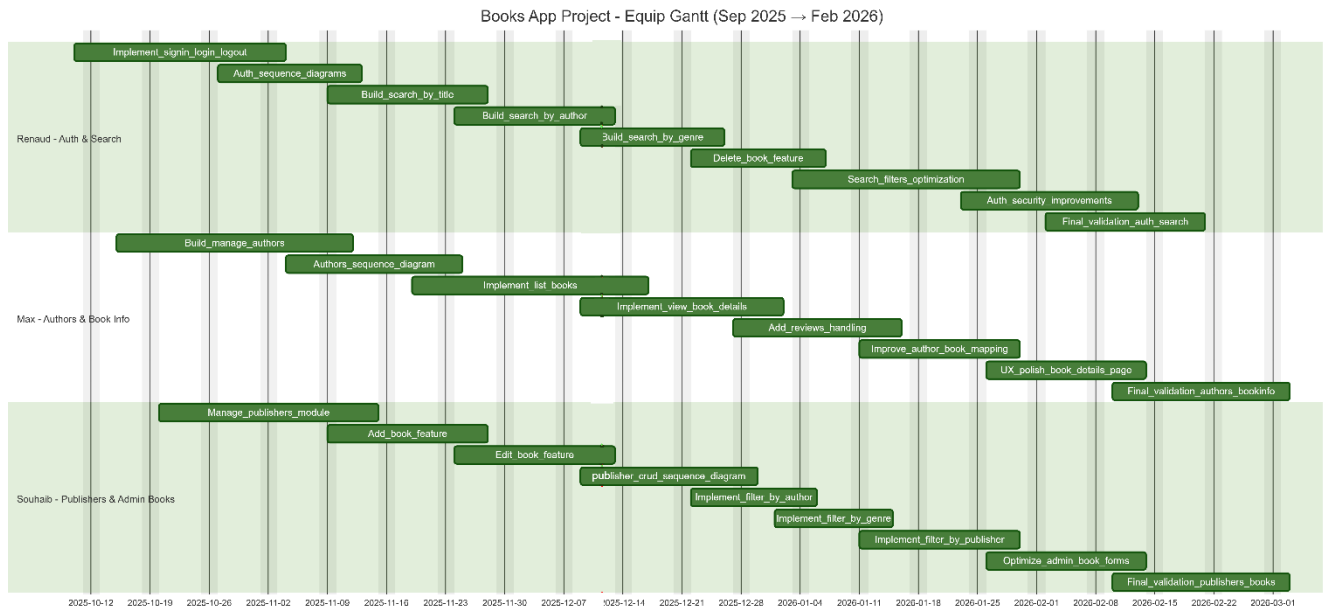
User diagram

Renaud :

Max :

Equip Gant Diagram

Books App Project - Equip Gantt (Sep 2025 → Feb 2026)

Renaud - Auth & Search
- Implement_signin_login_logout
- Auth_sequence_diagrams
- Build_search_by_title
- Build_search_by_author
- Build_search_by_genre
- Delete_book_feature
- Search_filters_optimization
- Auth_security_improvements
- Final_validation_auth_search

Max - Authors & Book Info
- Build_manage_authors
- Authors_sequence_diagram
- Implement_list_books
- Implement_view_book_details
- Add_reviews_handling
- Improve_author_book_mapping
- UX_polish_book_details_page
- Final_validation_authors_bookinfo

Souhaib - Publishers & Admin Books
- Manage_publishers_module
- Add_book_feature
- Edit_book_feature
- publisher_crud_sequence_diagram
- Implement_filter_by_author
- Implement_filter_by_genre
- Implement_filter_by_publisher
- Optimize_admin_book_forms
- Final_validation_publishers_books

2025-10-12 2025-10-19 2025-10-26 2025-11-02 2025-11-09 2025-11-16 2025-11-23 2025-11-30 2025-12-07 2025-12-14 2025-12-21 2025-12-28 2026-01-04 2026-01-11 2026-01-18 2026-01-25 2026-02-01 2026-02-08 2026-02-15 2026-02-22 2026-03-01
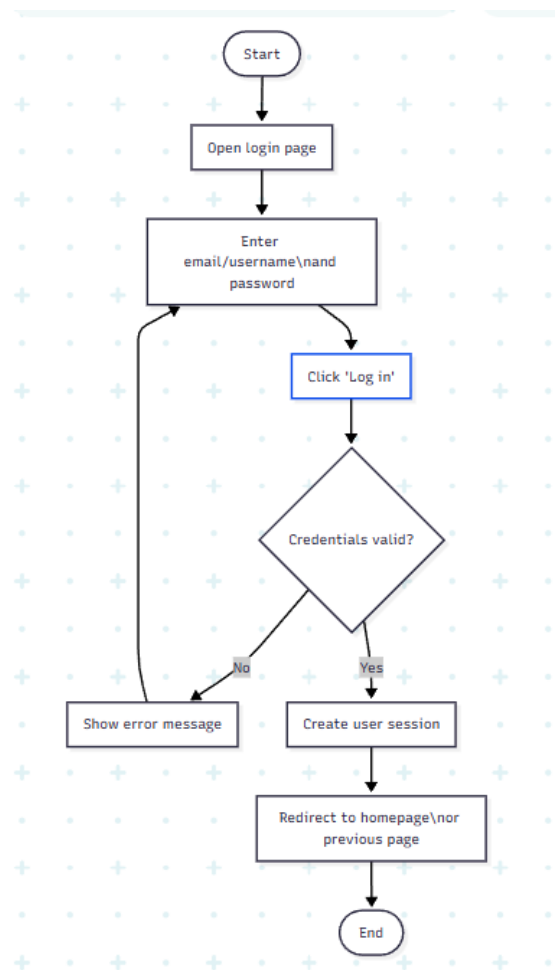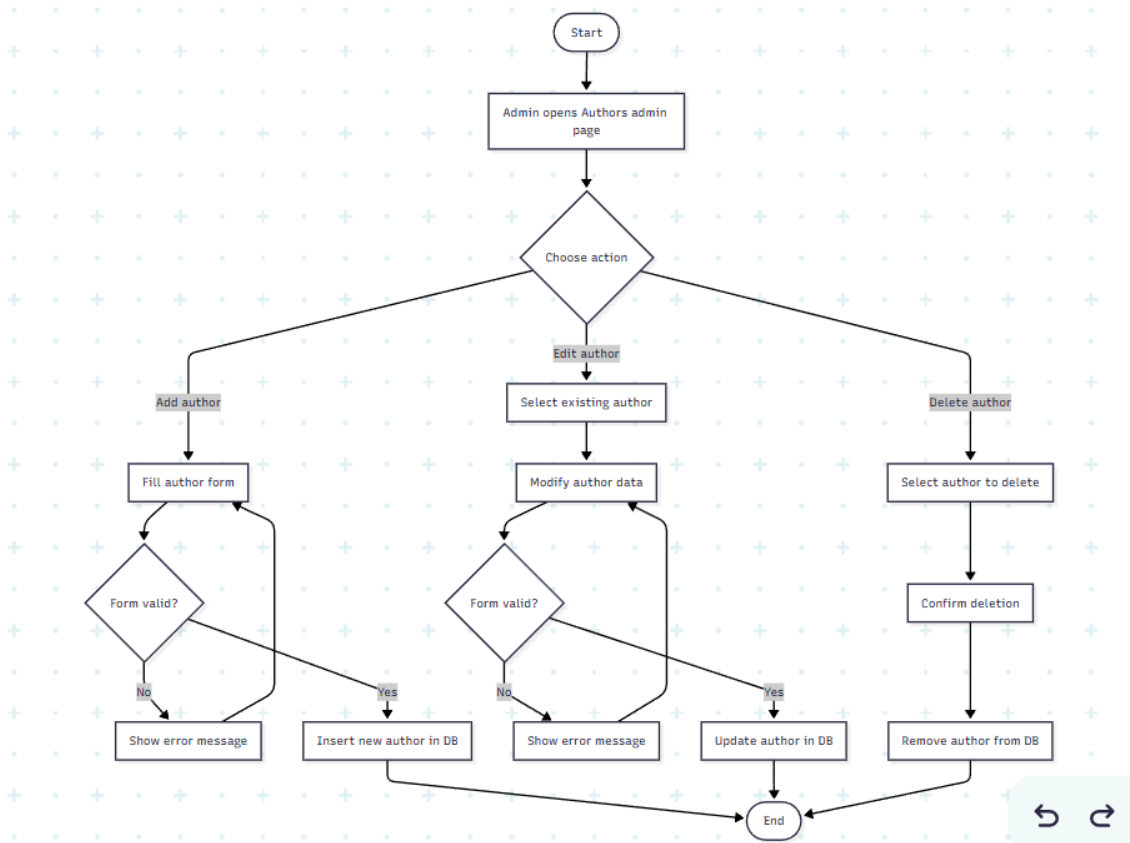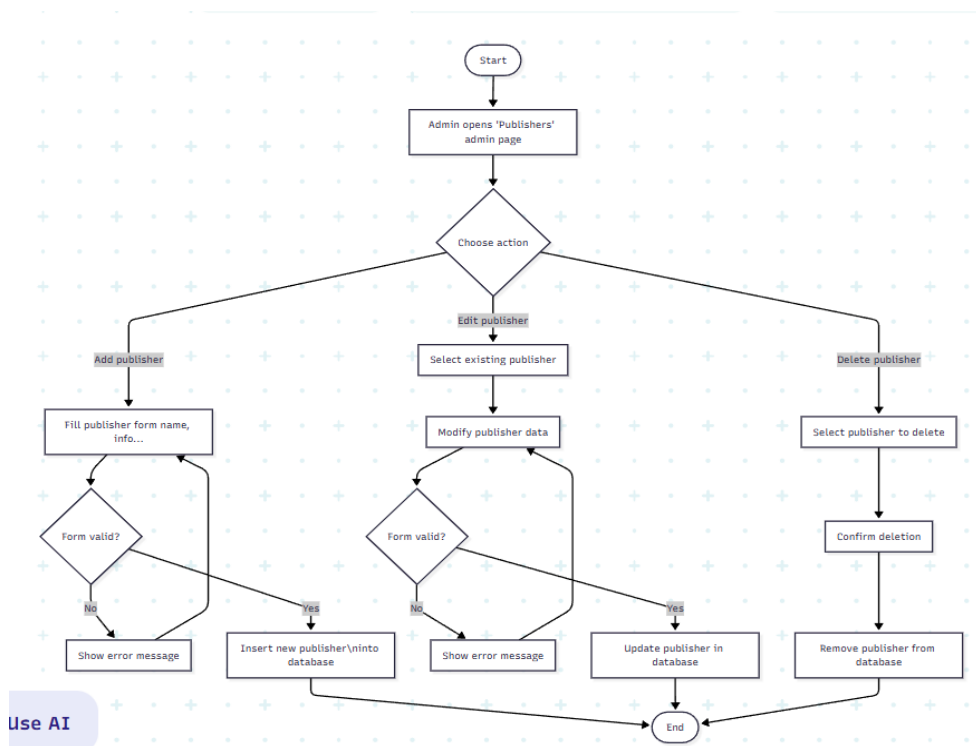
Activity diagram

Renaud : sign in, log in, search book global

Max : manage authors, check book list, view book details

Souhaib : add books, edit books, manage publishers

Wireframes

There is one wireframe per person.

Renaud

```
| BOOKS APP (logo)      | Dashboard | Logout  |


|     ADMIN - MANAGE AUTHORS              |


| [Add New Author] (button)               |


| Existing Authors                        |
| ┌───────────────────────────────┐       |
| | John Smith  |  Edit  |  Delete |       |
| └───────────────────────────────┘       |
| ┌───────────────────────────────┐       |
| | Jane Doe   |  Edit  |  Delete  |       |
| └───────────────────────────────┘       |


| Add / Edit Author (modal or section)    |
| Name: [_____]              |
| Bio:  [_____]              |
| (Save)   (Cancel)                       |


| Footer                                  |
```

Max

```
+-----------------------------------------------------------+
| BOOKS APP (logo)                          Home | Login    |
+-----------------------------------------------------------+
| Search: [_____] (Search)                         |
+-----------------------------------------------------------+
| Book List                                                 |
+-----------------------------------------------------------+
| [Cover]   Book Title                         ★★★★★         |
|           Author: John Smith                              |
|           (View details)                                  |
+-----------------------------------------------------------+
| [Cover]   Another Title                      ★★★★☆         |
|           Author: Jane Doe                                |
|           (View details)                                  |
+-----------------------------------------------------------+
| Footer (optional)                                         |
+-----------------------------------------------------------+
```
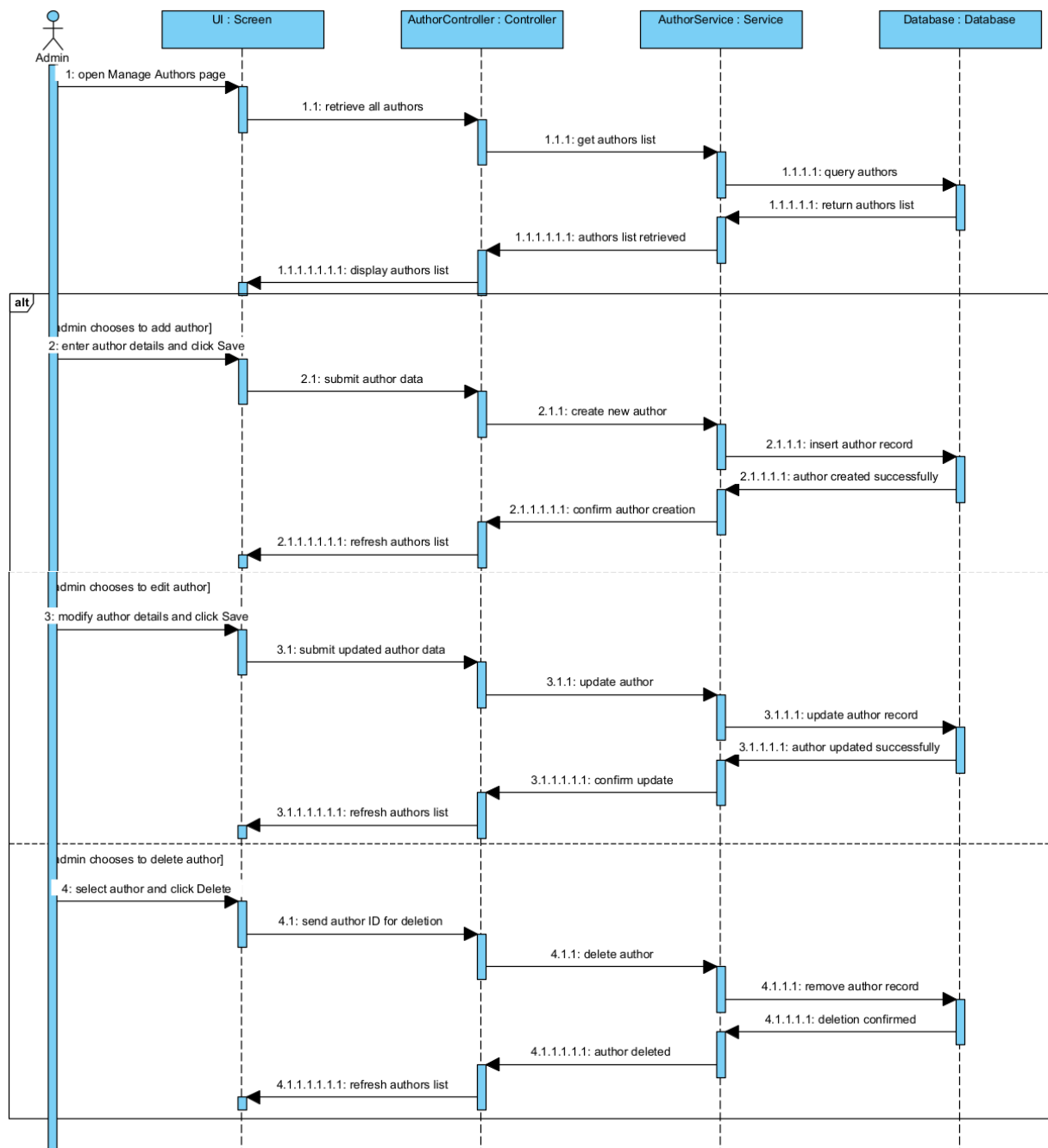
Souhaib

```
+------------------------------------------------------------------+
| BOOKS APP (logo)                          Admin Panel | Logout   |
+------------------------------------------------------------------+
| ADD A NEW BOOK                                                   |
+------------------------------------------------------------------+
| Title:       [_____]                            |
| Author:      [Dropdown ▼]                                        |
| Publisher:   [Dropdown ▼]                                        |
| Language:    [Dropdown ▼]                                        |
| Genres:      [ ] Fantasy   [ ] Drama                            |
|              [ ] Action    [ ] Sci-Fi                           |
+------------------------------------------------------------------+
| Description:                                                     |
| [_____]                                   |
| [_____]                                   |
+------------------------------------------------------------------+
| ( Save )                              ( Cancel )                 |
+------------------------------------------------------------------+
| Footer                                                          |
+------------------------------------------------------------------+
```
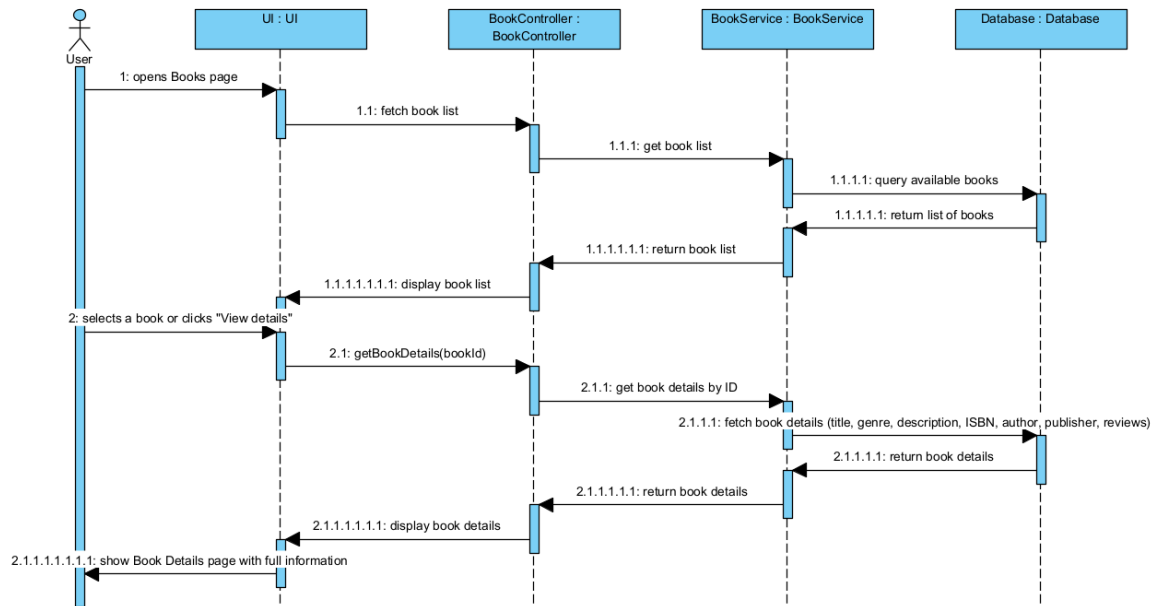
Sequence diagram

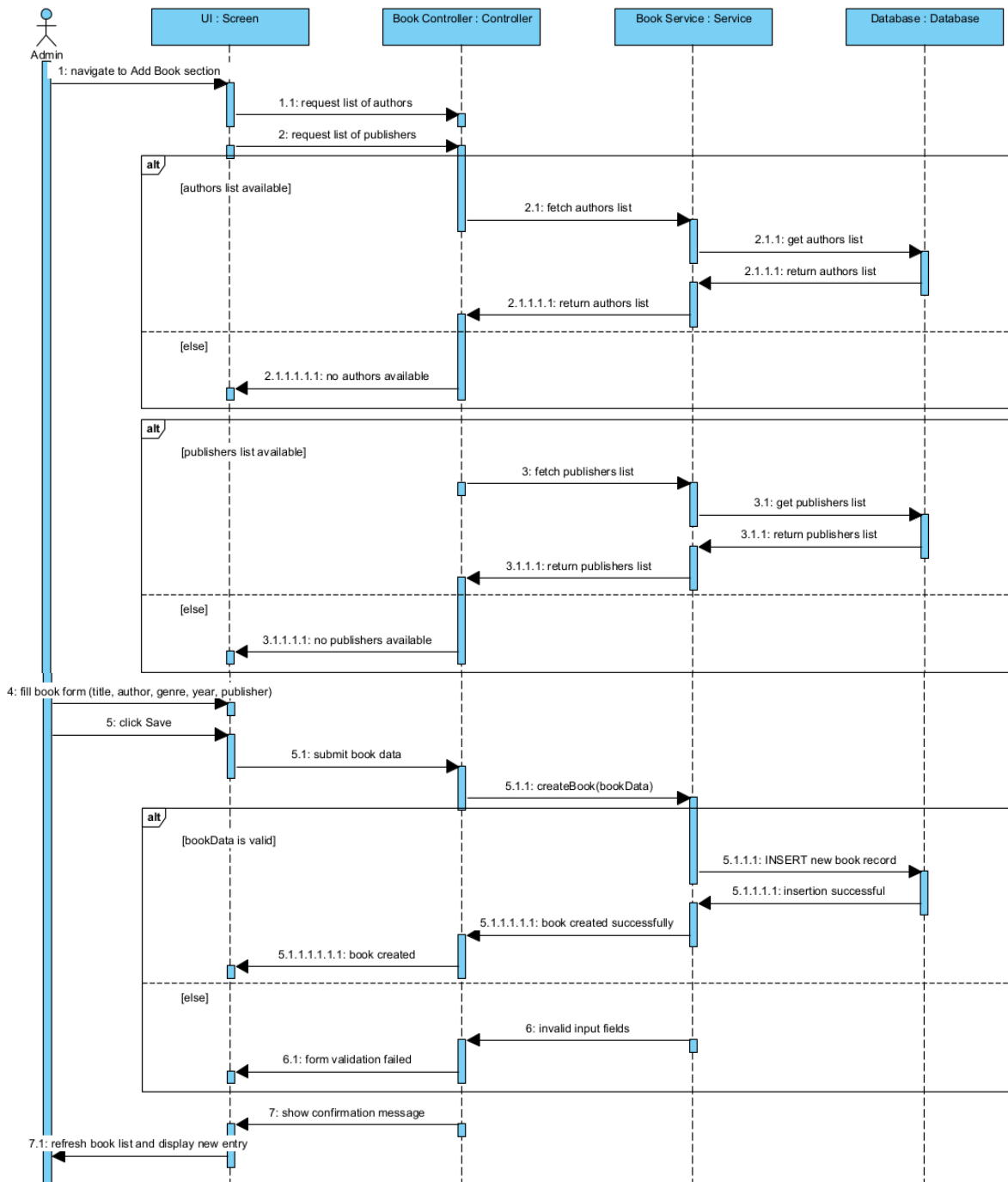**There is one sequence diagram per person.**
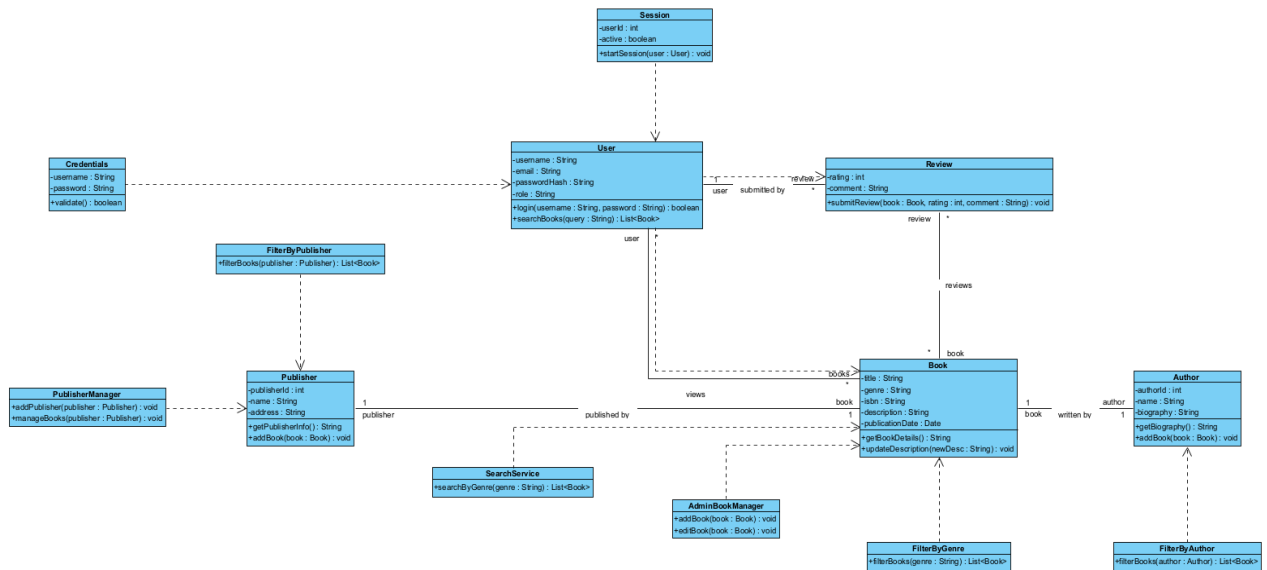
Renaud : manage authors

Max : view books details

Souhaib : add book

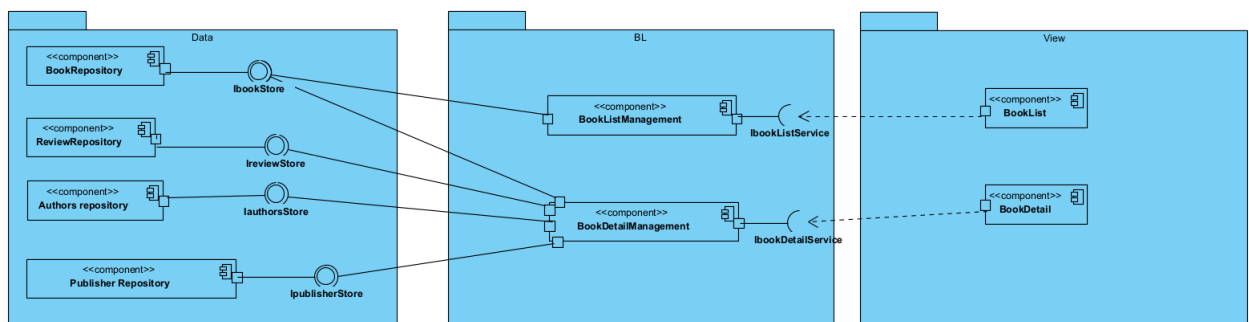# Class diagram

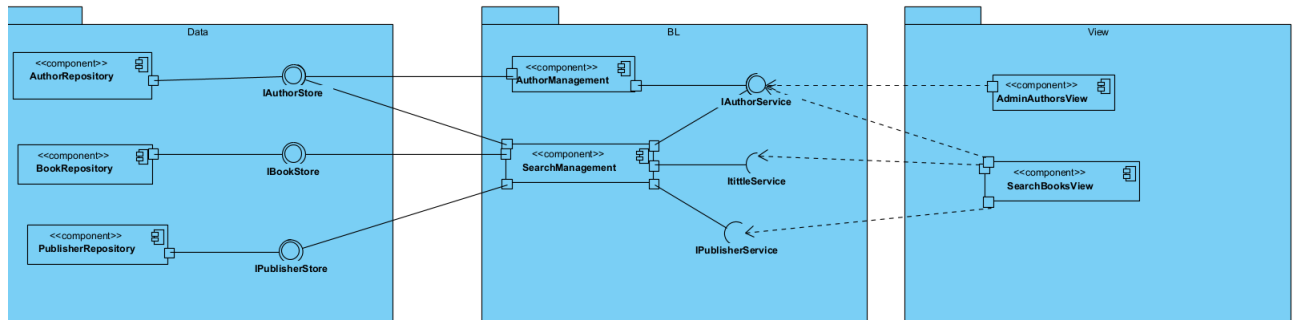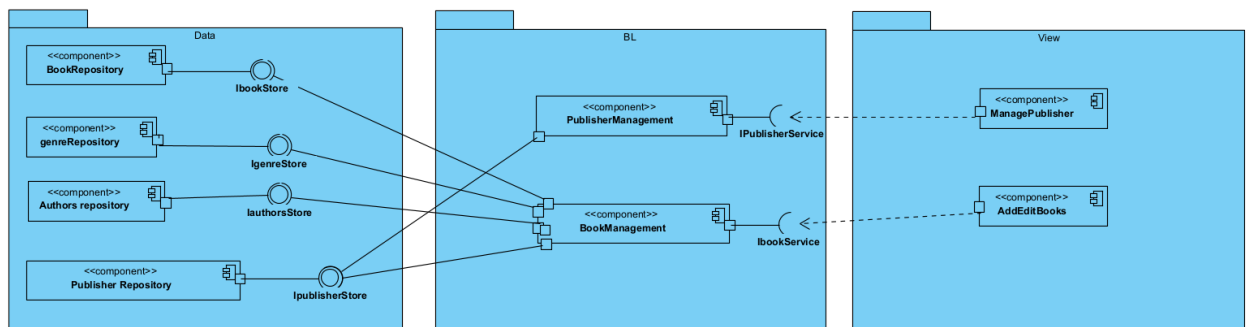

Component diagram

Max:

Renaud:

Souhaib:

Gant Diagram

Books App Project - Planned Gantt