LIBRAIRIE DORO

BookShop — MySQL Project

Renaud Yoganathan, Max Dambron, Souhaib Sghaier

Object-Oriented Analysis & Design + Advanced Web Programming
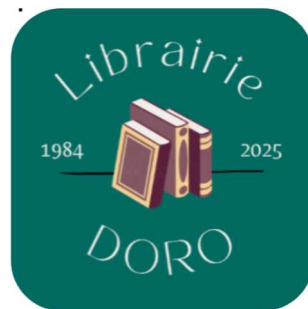
Our Goal

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.
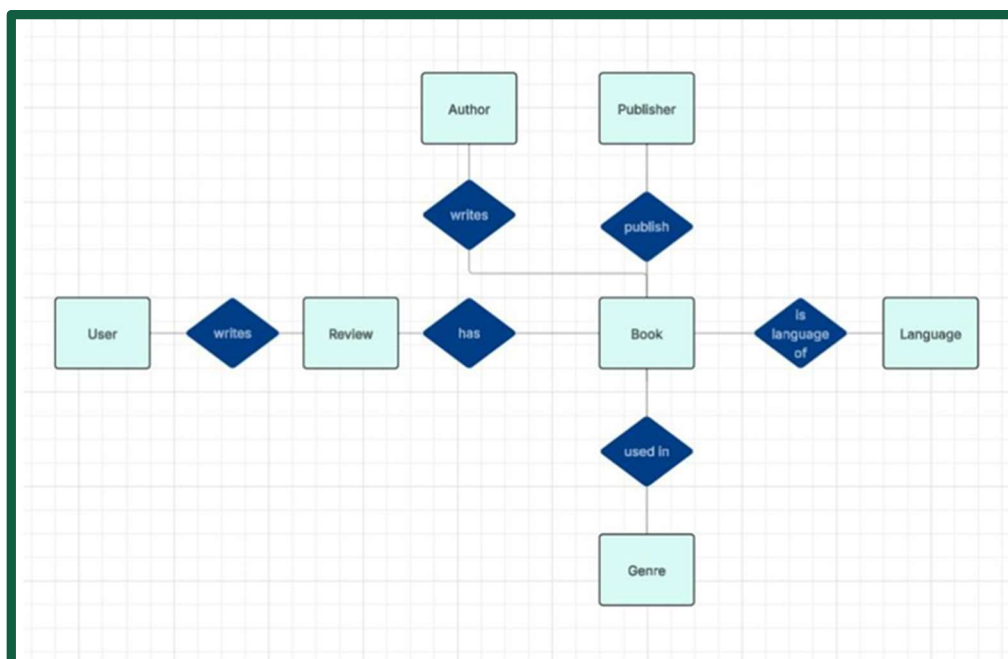
Table Structure Description

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.
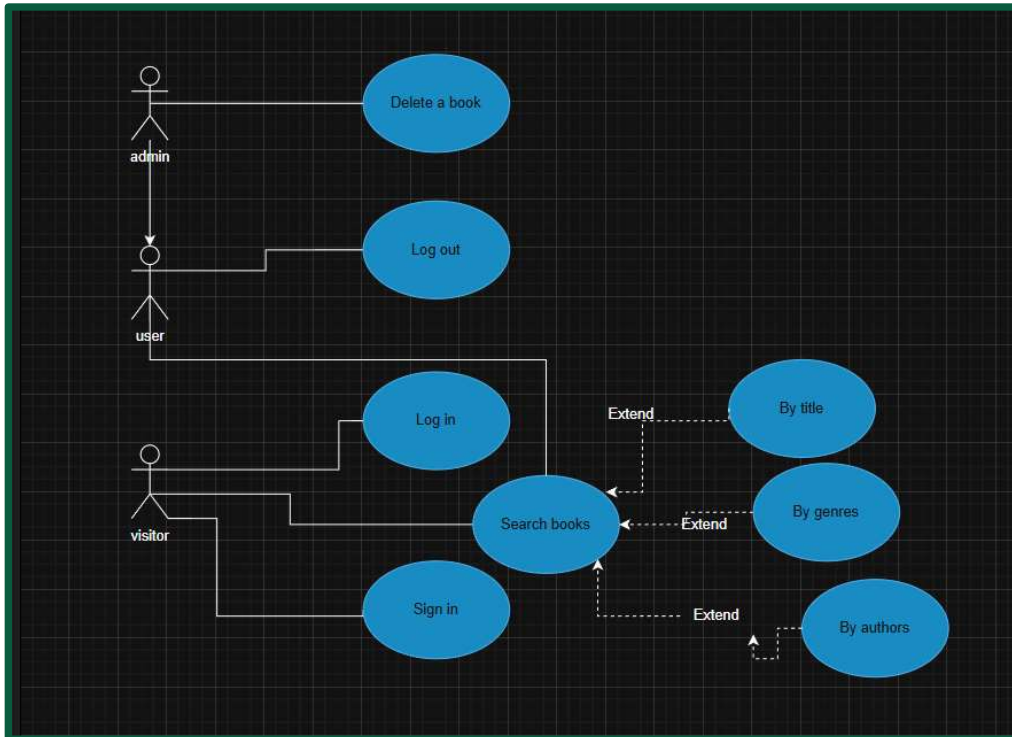
This creates a one-to-many relation between *Users → Reviews* and *Books → Reviews*.

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.
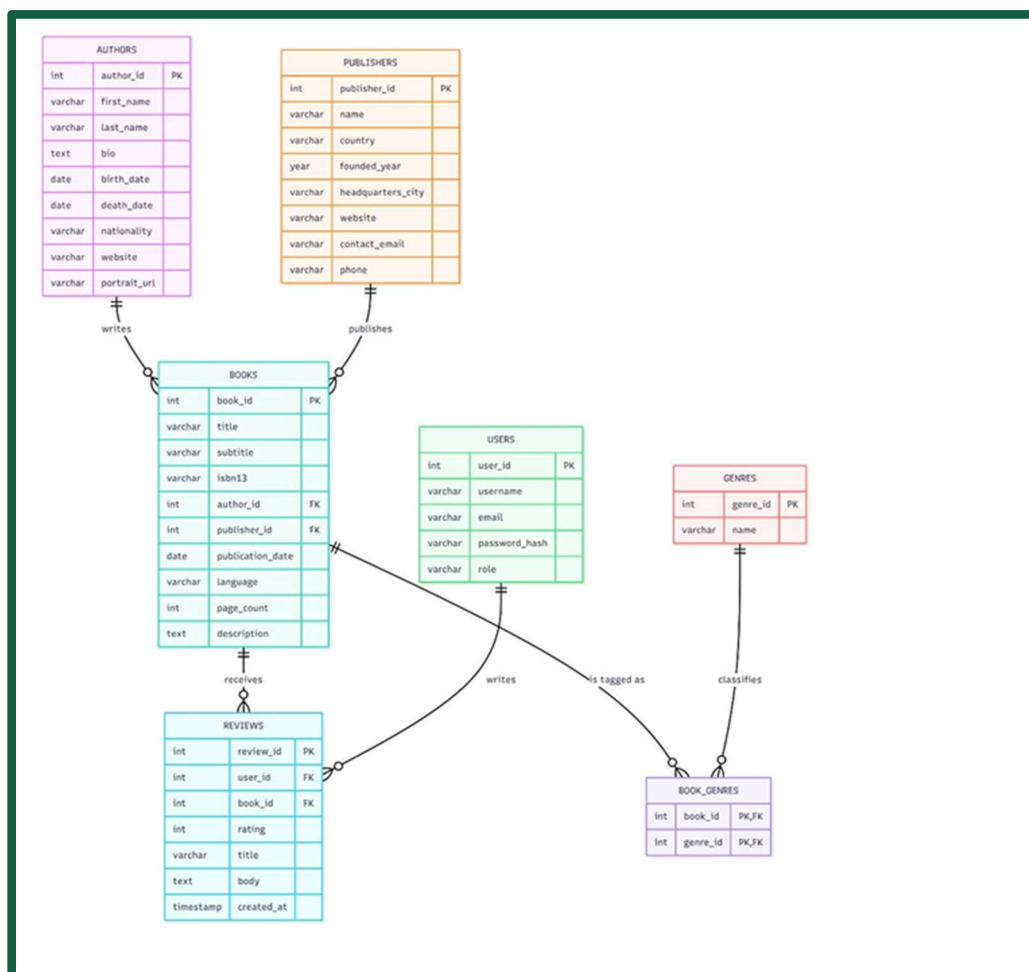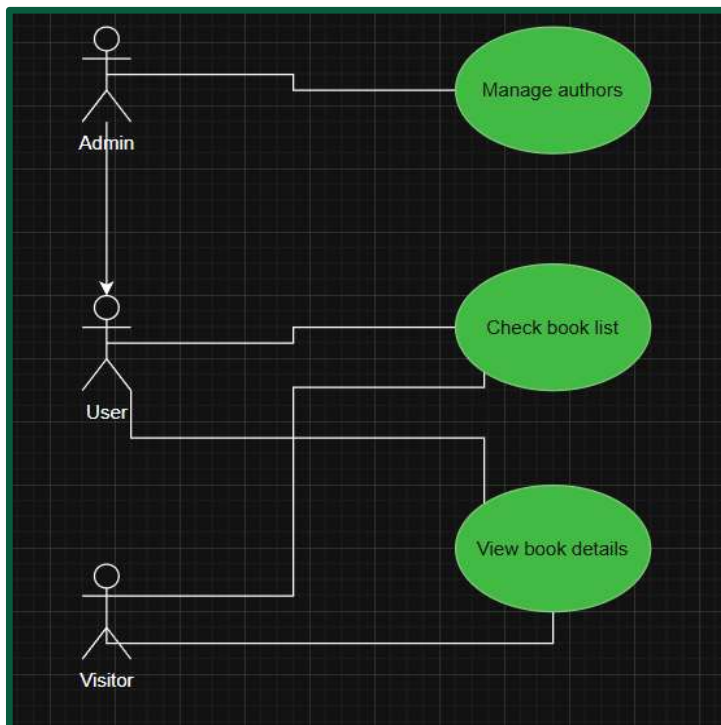
User diagram

Renaud :

Max :

Souhaib :

Gant diagram
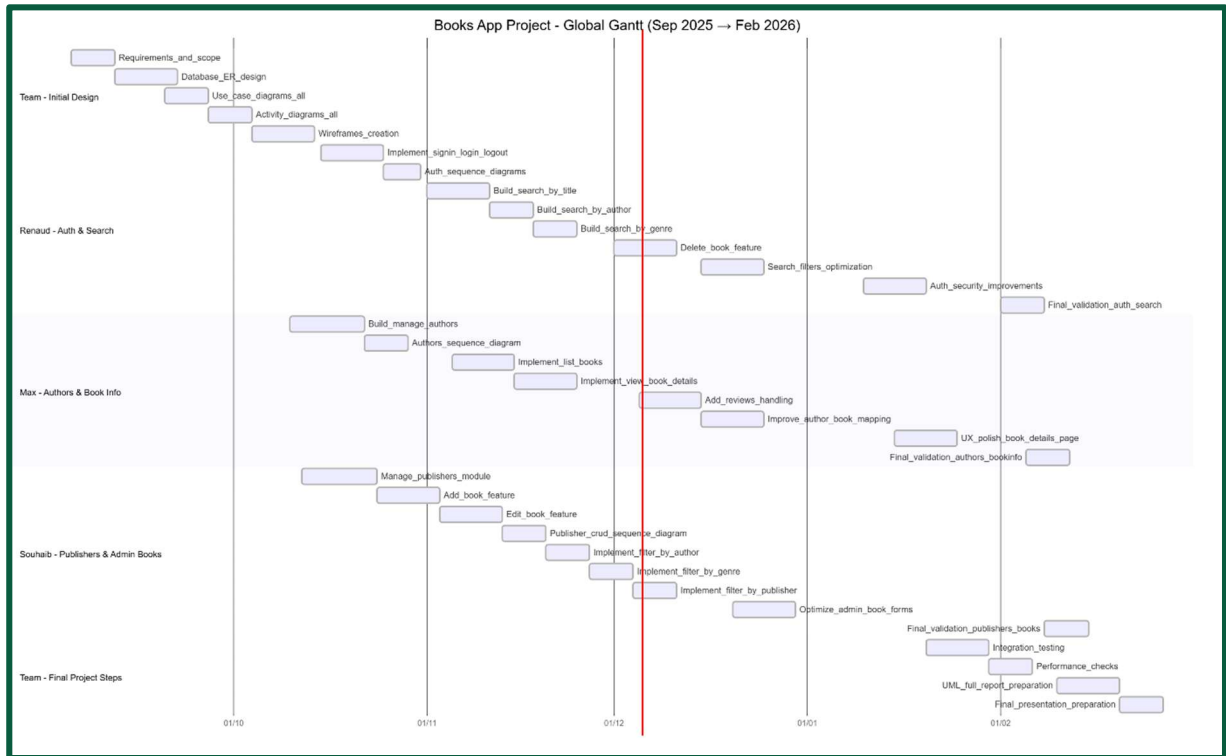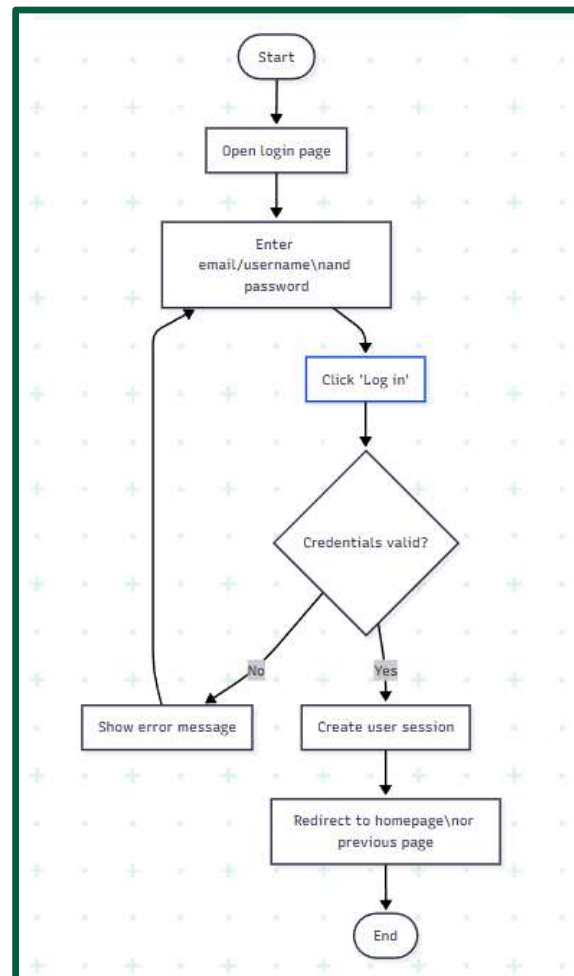

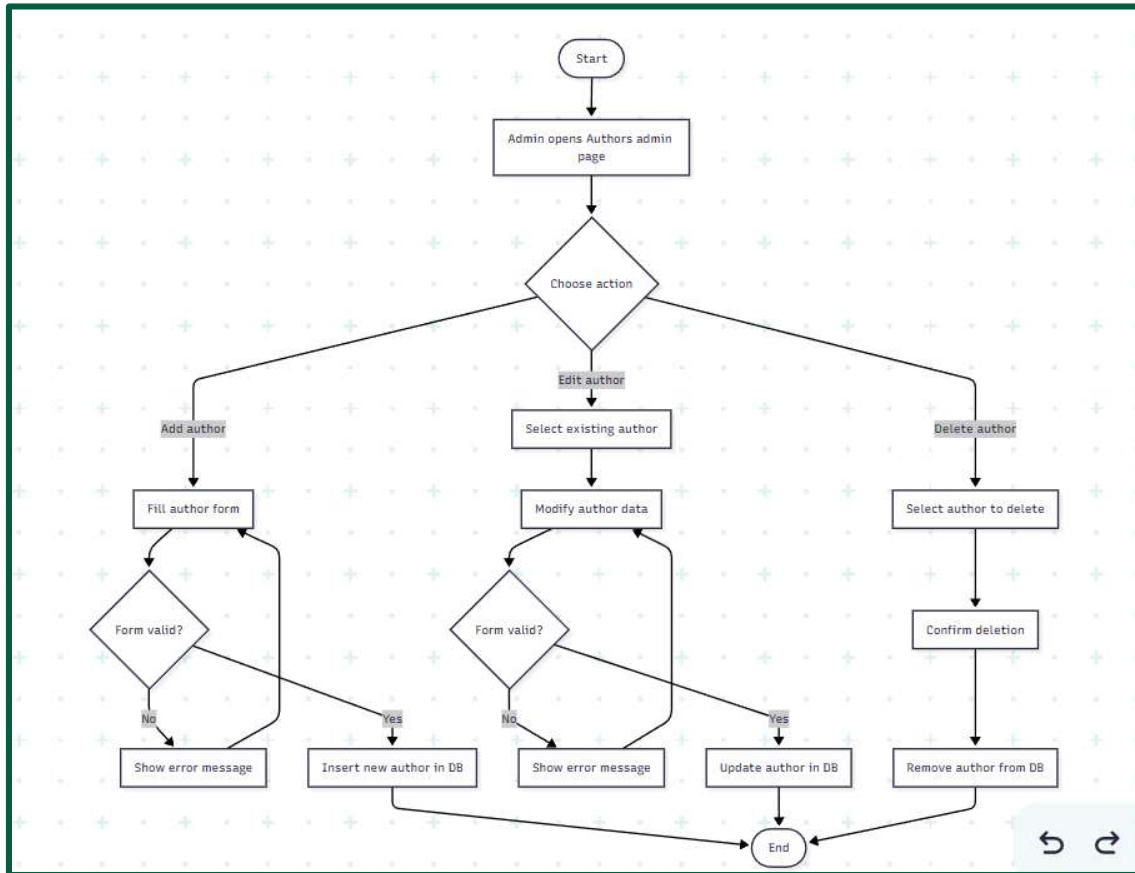Books App Project - Global Gantt (Sep 2025 → Feb 2026)
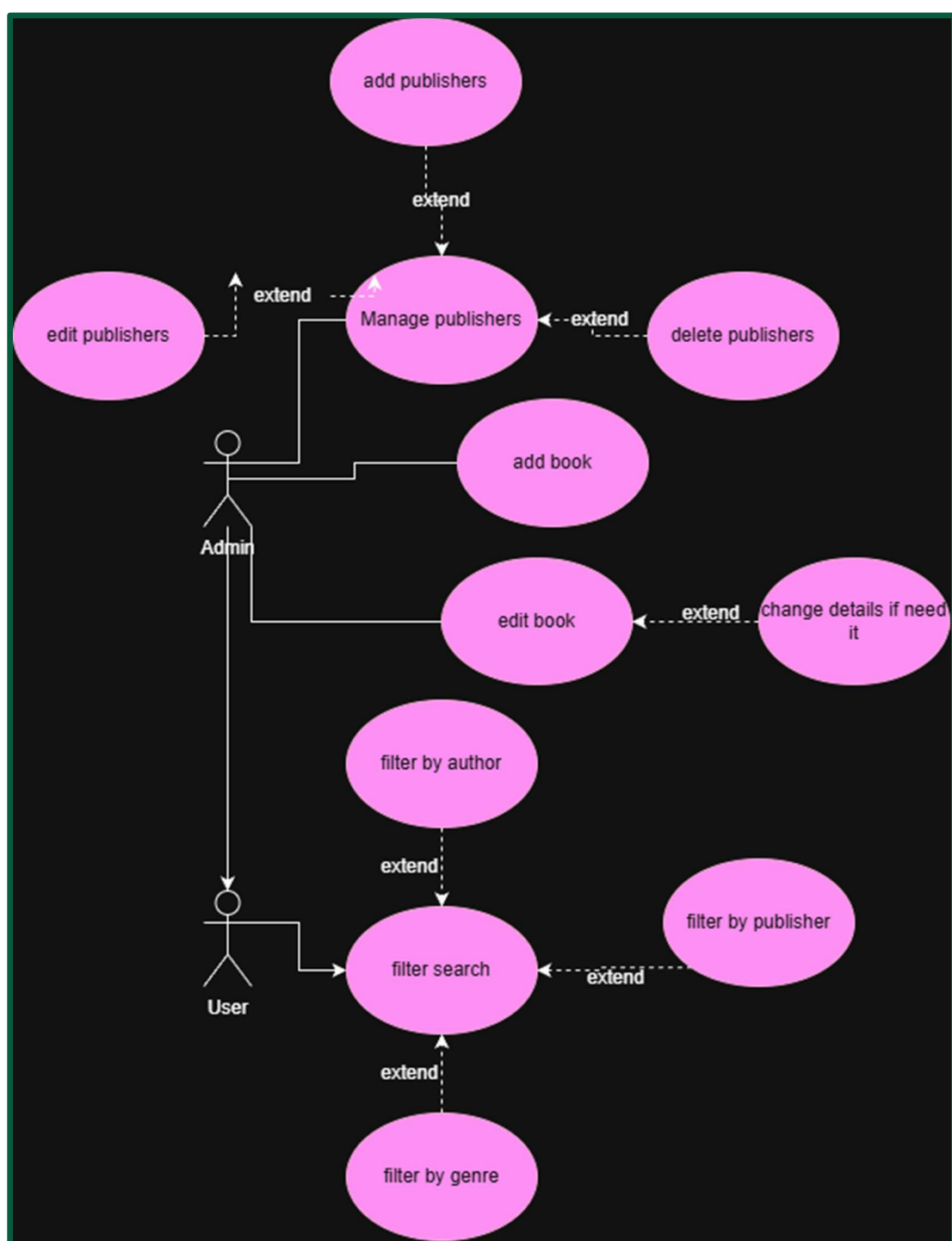
Activity diagram

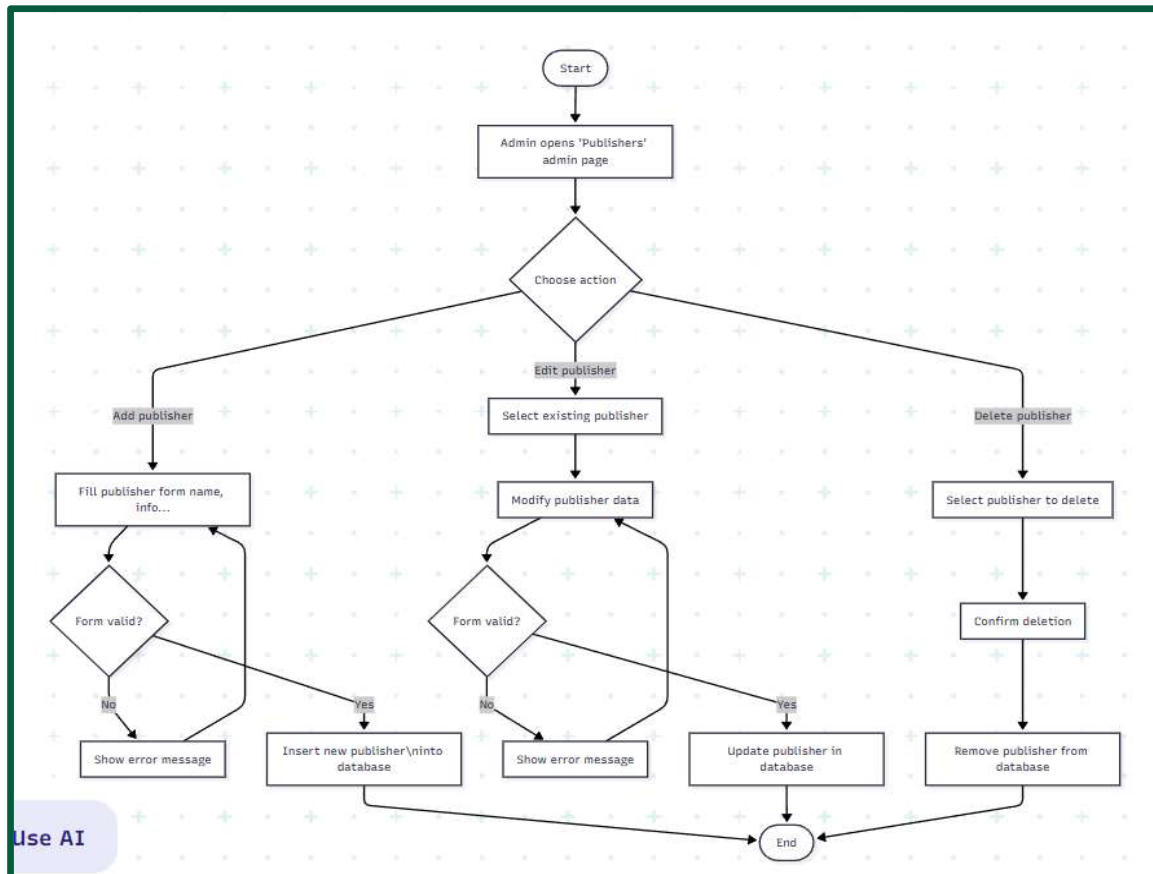**Renaud : sign in, log in, search book global**

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                                                           |
+------------------------------------------------------------------+
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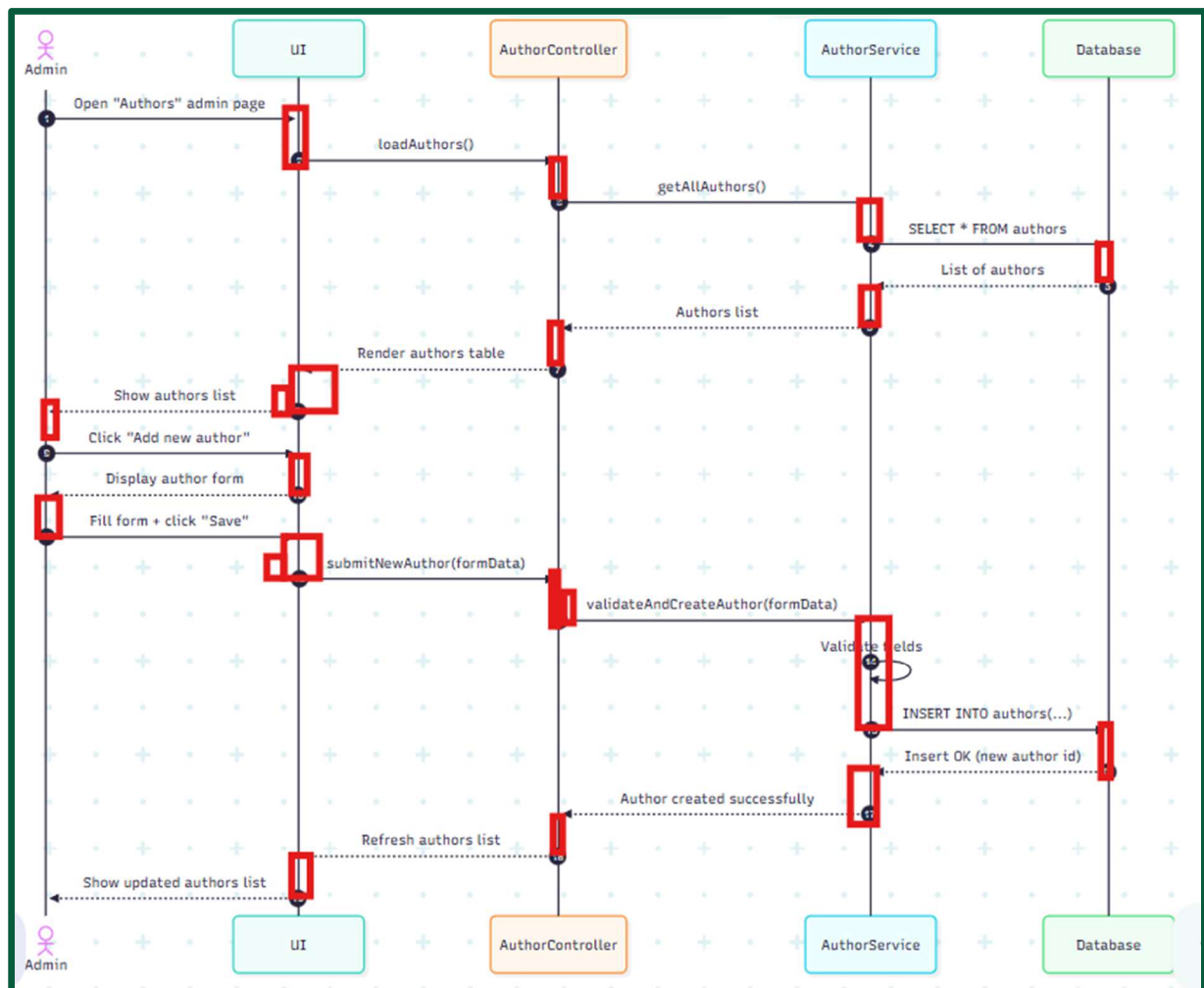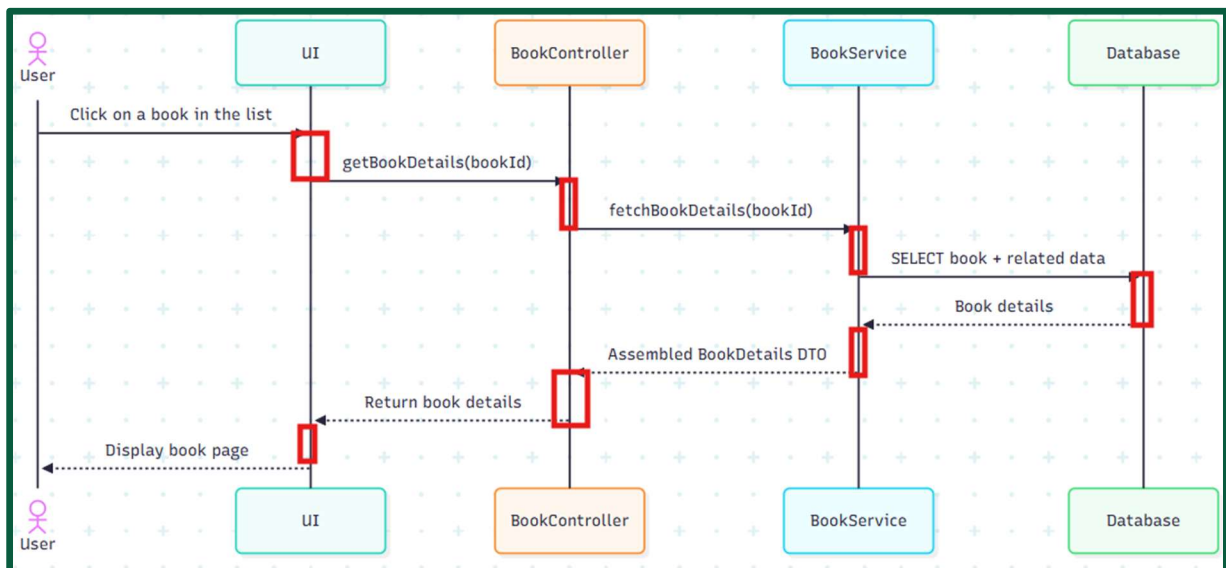
Sequence diagram
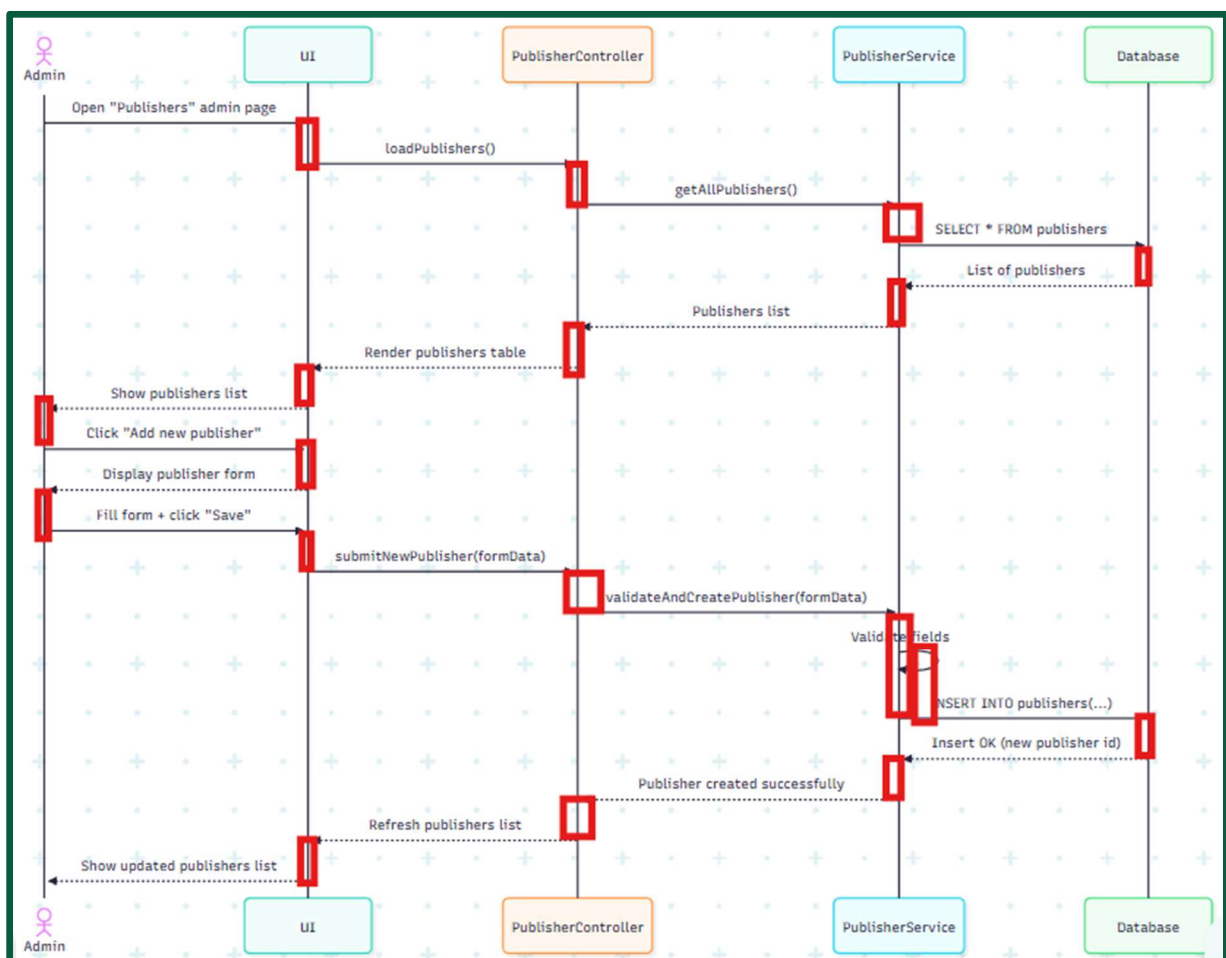
There is one sequence diagram per person.

Renaud : manage authors
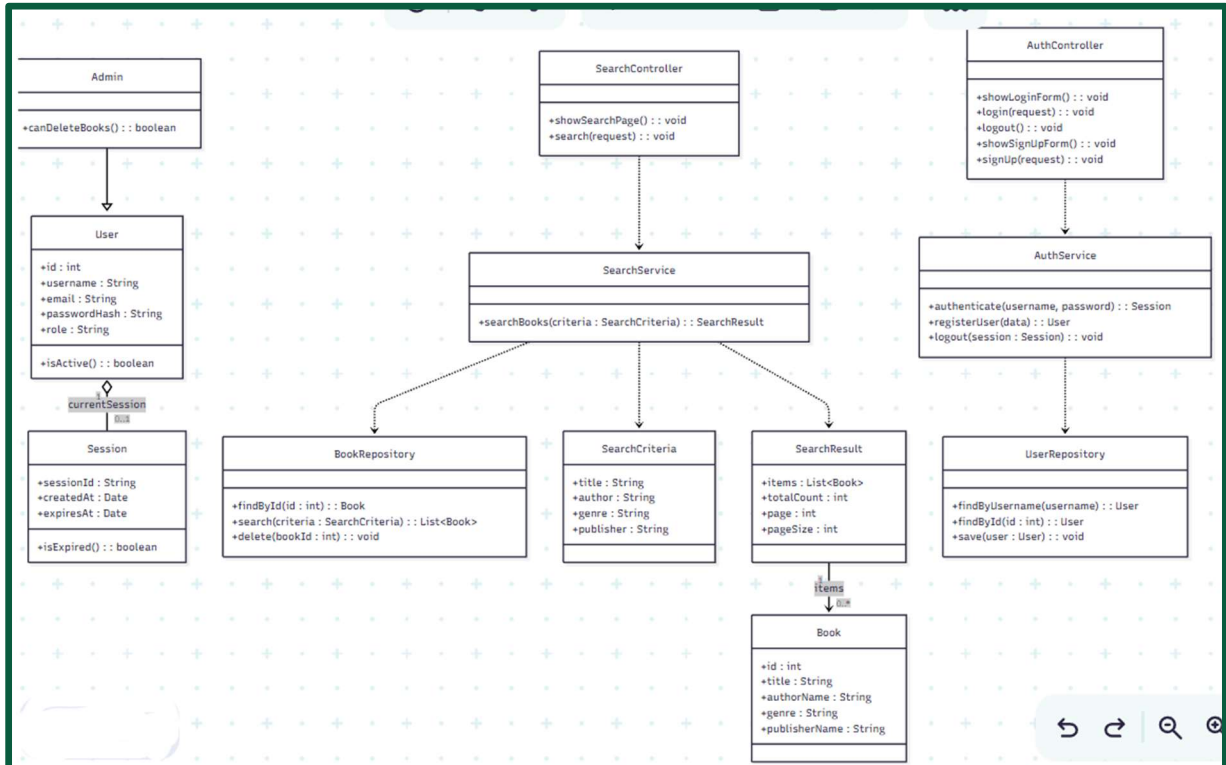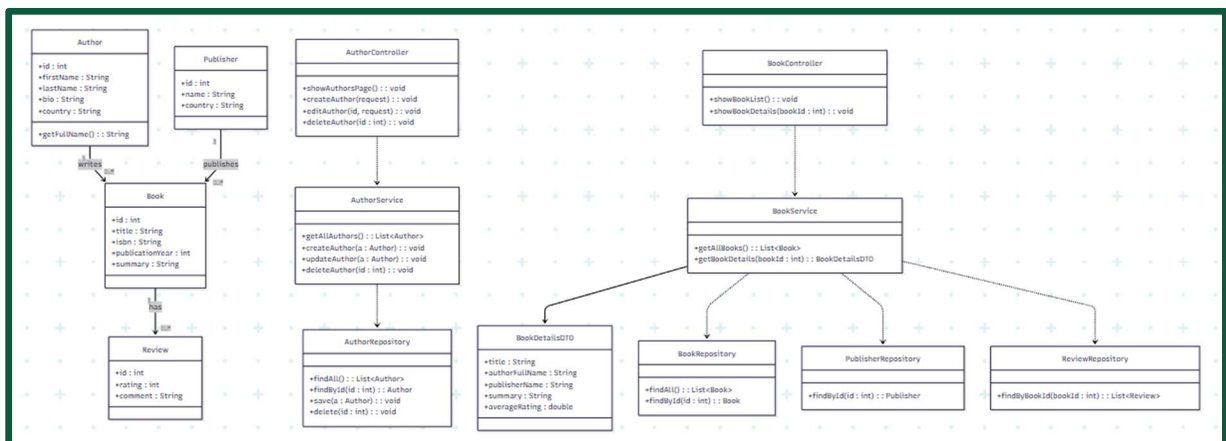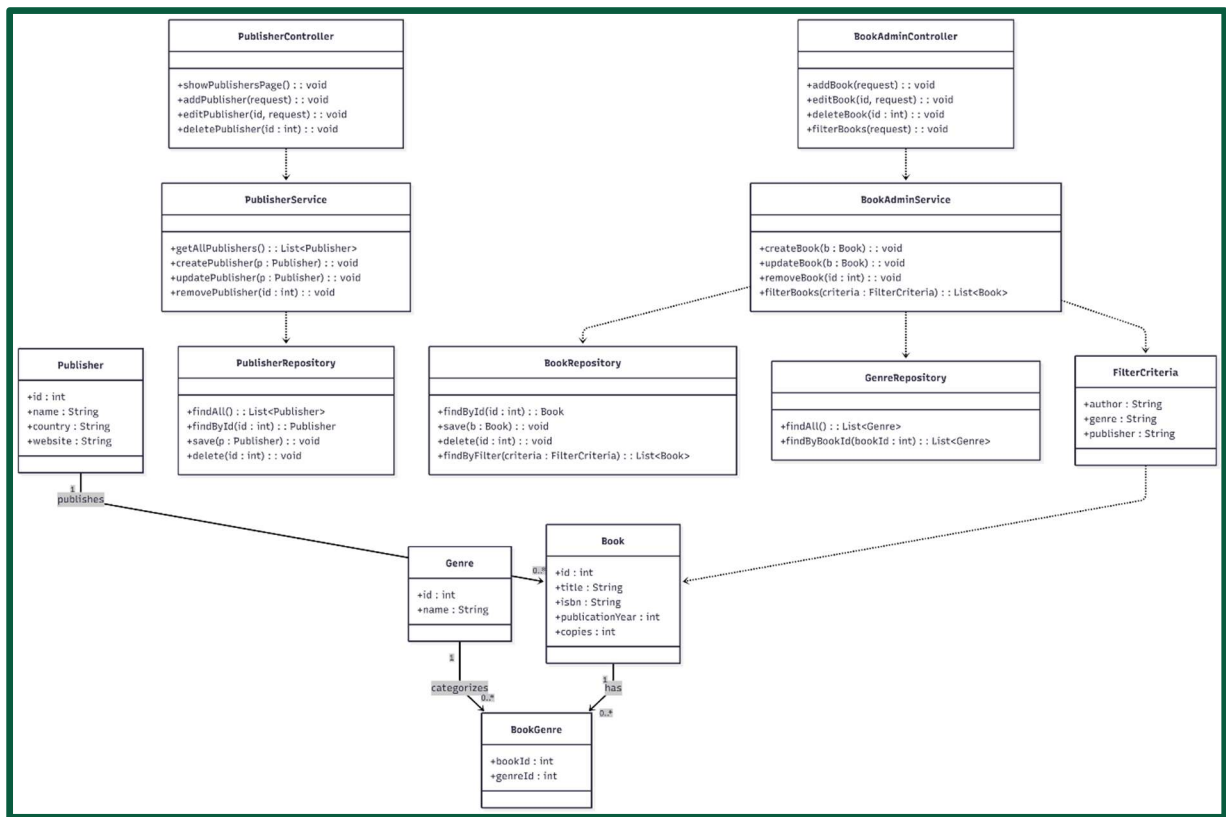
Max : view books details

Souhaib : add book

Class diagram

Renaud :

Max :

Souhaib :

Component diagram