Title:
BookHub: A Social Reading Platform

Problem Description:
Reading is an inherently social activity. People rely on book recommendations from friends, review platforms, and curated lists. However, existing platforms often lack social features such as following users, seeing friends' reviews, or tracking what others are reading. Book discovery tends to be algorithm-driven rather than community-driven, and users have no simple way to keep track of books they want to read, have read, liked, or rated in one system.

Domain Overview:
This project operates in the domain of online literary communities, combining book cataloging, user-generated content (reviews, ratings), social networking (following users, likes, bookmarks), and personalized recommendation signals. The domain requires a well-structured relational database to maintain relationships among users, books, authors, reviews, and social interactions.

Proposed Solution:

We propose to develop BookHub, a full-stack Spring Boot web application that lets users

- Create accounts and log in to a personalized dashboard.
- Browse books by title, author, category, or rating.
- Rate books on a 0–5 scale with decimal precision.
- Write reviews and read reviews from users they follow.
- Like books, add books to their wishlist, and mark books as read.
- Follow other users and see a personalized review feed.
- View user profiles showing:
    - Books they liked
    - Books they read
    - Their wishlist
    - Their reviews

User Interfaces:

The application will include the following UI pages:

1. **Home / Browse Page**
    - Filters (title, author, category, minimum rating)

- List of books

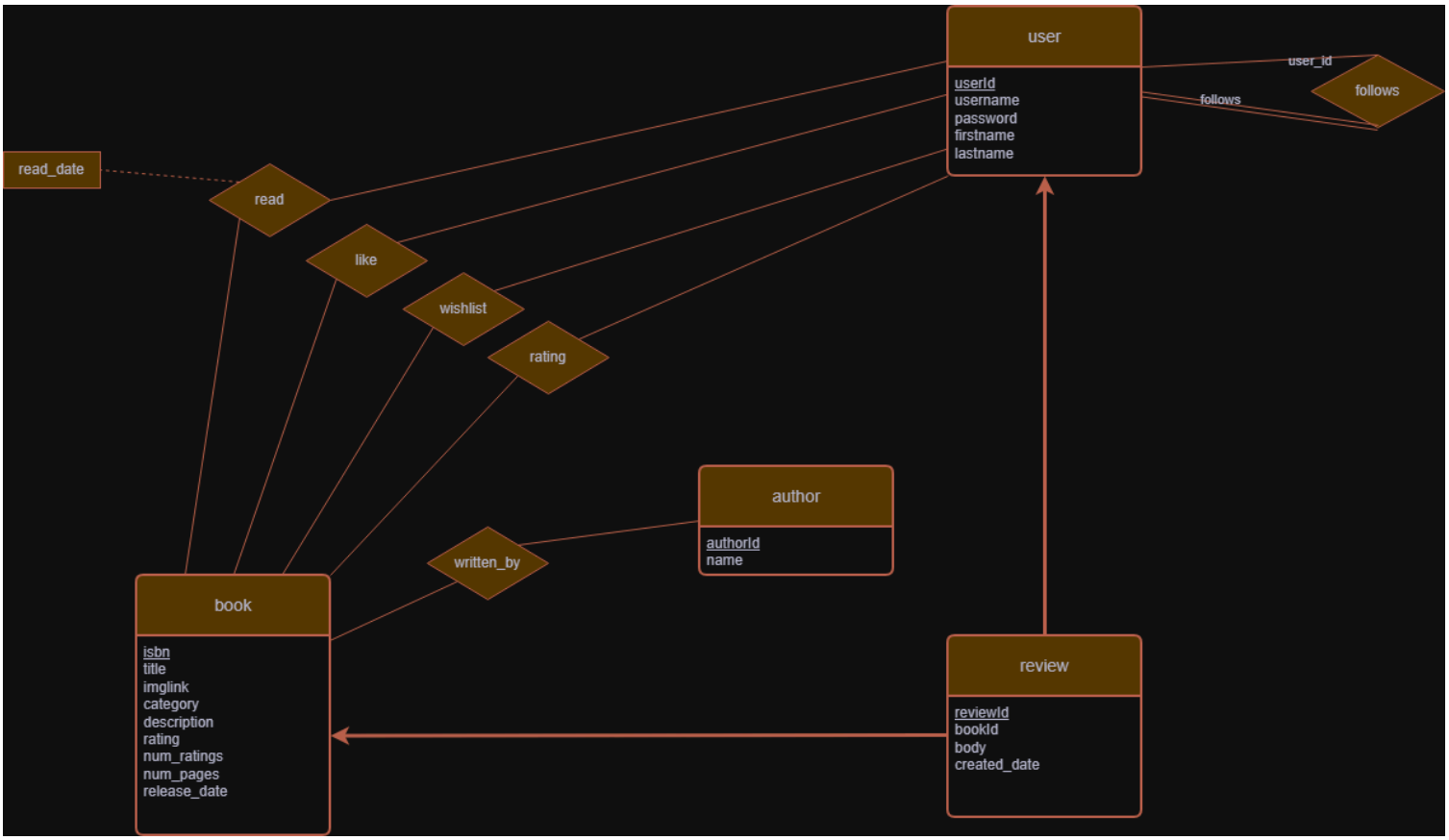
2. **Book Page**
   Displays:
   - Cover image
   - Authors
   - Description
   - Average rating and number of ratings
   - User's own rating form
   - Like/wishlist/read buttons
   - Reviews for this book
3. **Review Feed Page**
   - Shows reviews written by users that the logged-in user follows
4. **User Profile Page**
   - Basic user info
   - Books liked
   - Books read
   - Wishlist
   - Past reviews
5. **People Page (Follows List)**
   - All the users you follow
   - Option to unfollow
6. **Login & Registration Pages**

Backend Functionality

The system will support:

- CRUD operations for reviews
- Rating aggregation
- Managing user interactions (likes, wishlist, read status)
- Following/unfollowing other users
- Maintaining session-based authentication and authorization

ER Diagram:



Technologies Used:

Backend

- Spring Boot (v4) – application framework

- Spring MVC – controllers, routing
- Spring Security – authentication and session management

Frontend

- Mustache Templates – rendering dynamic pages
- HTML/CSS – layout and styling
- Font Awesome – icons for UI actions

Database

- MySQL 8 running in Docker
- SQL scripts for schema design and data loading

Deployment & Tools

- Docker Desktop
- GitHub for version control
- VS Code for development
- Maven for dependency management