



BILKENT UNIVERSITY
ENGINEERING FACULTY
DEPARTMENT OF COMPUTER SCIENCE

**CS353 DATABASE SYSTEMS
PROJECT PROPOSAL**

Digital Reading and Sharing Platform
Group 16

Barış Tiftik
Ege Moroğlu
Mehmet Yiğit Harlak
Melisa Onaran

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1. Description of the Project

The aim of this project is to create an interactive book reading website. Users can read various books from different authors, save their progress, rate and comment. Authors can write and publish their books on the platform via publisher. They will be able to read and reply to reviews of their books. There are editors who can edit the published or unpublished books. Users are able to create book-lists and their friends can see their lists. There are translators, who can translate the books to specific languages if necessary. Librarians will be able to organize reading challenges and users can compete in these challenges. As an additional feature, there will be movies based on the books. Users could see the movie description, trailer link to youtube and other context of the movie.

2. Requirements

2.1. Nonfunctional Requirements

2.1.1. Authentication and Security

The system should be secure enough to keep user information safe. Users have to fill out a form to sign up. System will check if the user exists in the system. Since there are 6 different roles in the application as follows: users, authors, editors, publishers, librarians and translators. Each will have a different sign up page. Application requires different information from different roles. For instance, users are allowed to sign in if they enter their credentials(email and password) correctly. User credentials will be compared with the database and they will be allowed to enter the system if verification succeeded.

2.1.2. User Friendly Interface

The user interface will be reasonably simple for users to access various parts of the website. A user can easily find out what the links direct to since all are self explanatory. Since this application is a simple web-based system, users will not encounter any problem based on the user-interface.

2.1.3. Data Integrity and Access of Data

There are 6 different roles in this application and each role is allowed to see limited information about other roles. Users are able to see other users' information if they are friends in the application. However, all information of an author is visible to all. Different roles are not allowed to change other roles' information. There is read-only access for different types of roles. Editor information is not visible to anyone other than author and publisher.

2.1.4. Accessibility

This application is designed to be a desktop application. Therefore, anyone who has a web application such as Google Chrome or Mozilla Firefox can use it with a good internet connection.

2.1.5. Faster Response Time

Our website will be free of any auxiliary graphics in the interface, which makes it reasonably faster. Our focus will be on the database part of the project, that is, we will focus on faster queries.

2.1.6. Design Maintenance

We will build our database mainly on books and their relationships with other entities. That is, Book relation can be regarded as the main entity other entities have relationships with. Accordingly, when we are expanding our database we will mainly try to guard the Book entity and create other entities and relationships logically correct.

2.2. Functional Requirements

Functional requirements of the book reading and sharing platform expresses the needs for an ideal and proper implementation, clarify administrative functions, data management methods, authorization levels of entities and transaction handling where detailed in the E/R diagram given in section 4.0.

2.2.1. Activities of the User

Users are able to search books by its author, genre, year, publisher, edition etc., they can comment or rate on books, mark their progress on books, add other users as friends, like and comment on their friend's posts and regarding information inspired by a specific book, make requests about books which have false or missing information and also can participate in reading challenges.

2.2.2. Admin's Authority

Librarians which are the admins of the application can modify data and edit erroneous information about books by evaluating authors or users request, can organize reading challenges among users and declare a winner.

2.2.3. Activities of the Author

Authors are able to make requests to librarians to edit or modify information about their books or can request their books removal by the librarians.

2.2.4. Reading Challenges

Competitions between users according to their reading records can be organized by librarians in a separate tab and a particular competition covers a certain time range (a month, a year etc.) A winner is declared after the competition ends and the user's profile who won the challenge is modified accordingly.

2.2.5. Activities of Editor

Editors can make changes on the books. Editing can be made before or after publication of a book.

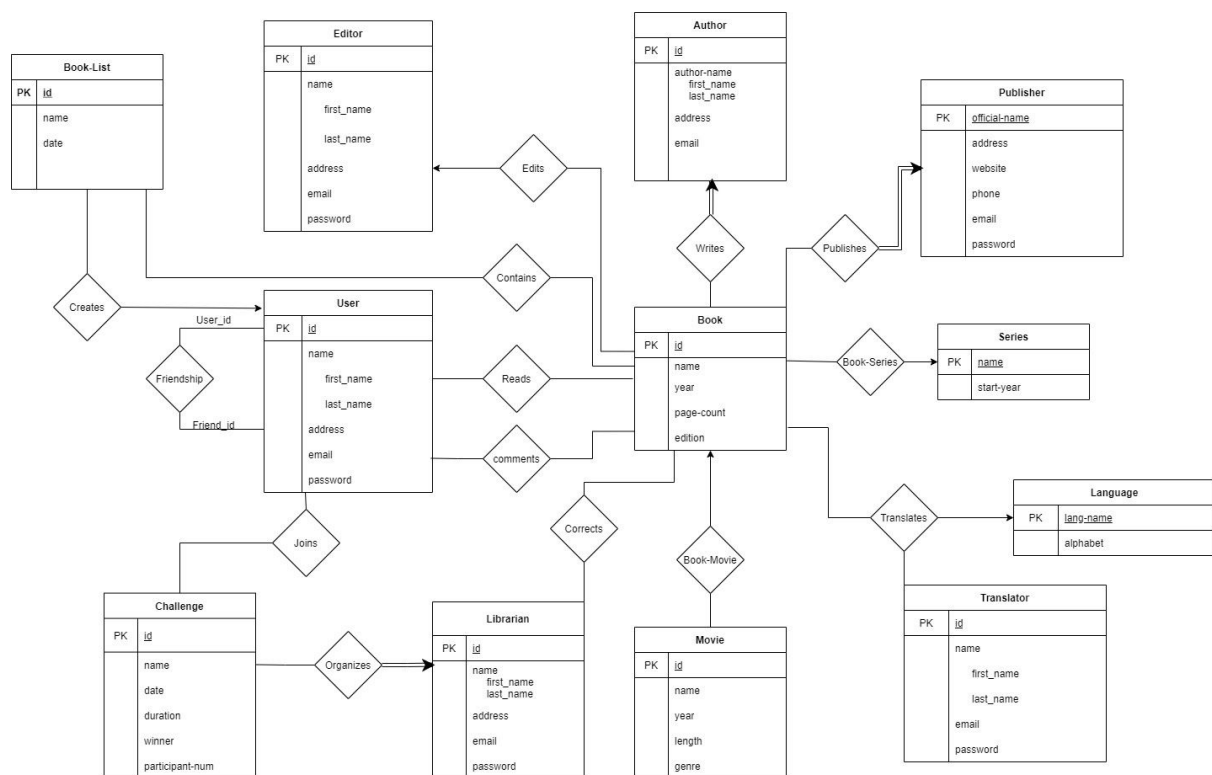
2.2.6. Activities of Translator

Translators can translate a book into a specific language if necessary. Translators may be qualified in more than one language. However, since this is a simple application, they will qualify in only one language.

3. Limitations

- Librarians can modify information of a book only upon request of users or authors.
- An author can only make a modification or deletion request on her/his own book.
- Users cannot see information about other users who are not in their friend list.
- Users cannot see, like or comment to posts of the users who are not in their friend list.
- Users, authors, editors or publishers cannot change any information regarding any part of the application.
- Librarians have the right to not to modify any information although a request is made.
- Only librarians can modify an information when a request is made for false/missing information
- Reading challenges can be organized by librarians only.
- Only librarians have the authority to declare the duration of the challenge.
- Only librarians have the authority to determine the winner of the challenge.
- Only translators can translate a book only upon authors and publishers confirmation.
- A book can only belong to a single book series.
- Only the editor or the author of the book could add/change its related movie content on the website.

4. E/R Diagram



5. Website Address

https://github.com/egemoroglu/Digital_Reading_And_Sharing_Platform

6. References

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