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ENGINEERING FACULTY

DEPARTMENT OF COMPUTER ENGINEERING

CS353

Project Proposal

Report

Group 11

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1. Introduction

Social platforms can be used to intensify the experience of reading books and entertainment. Reading a book can be seen as a singular activity, however, it can also be a way to connect people. Common areas of interest can create a unity which can improve reading experience. Combining a social platform with the reading book is a concept that can be beneficial for readers. A social platform which keeps the data of the books with the users love to read the books is the main design idea of this project. A social construction built on the book reading can create communities. This social platform aims to combine book reading and entertainment by sharing. Upon this idea, a social cataloging platform for books is a project that will be proposed in this report.

2. Description

This platform aims to help the book reading process by keeping track of the reading progress. Users will be able to track their books that they have read or will be read. In the platform, books can be specified with their properties such as author, genre, year etc. and they can be rated and commented globally by whom they are read. Although a set of books will be ready to use on the platform, new books can be added to the database by users if it is missing and a book addition request will be held by a librarian. Librarian is an authorized user type which is able to create weekly reading challenges globally. Challenges will be rated among friends each week.

Platform leads users to develop reading habits with the aid of the assignment feature. Starting a new book may be difficult for a person by himself so with this feature it is aimed to be easier. By the assignment feature, reading a new book can be assigned by self or by a friend. By assigning a book to a friend, friends can challenge themselves. The assignment feature can also be used in an educational way. Teachers and students can sign up to the platform and add themselves as friends then teachers can assign students to books. On the platform, friends will be able to comment and like the book reading progress of a user which may help teachers to track their students by checking their profiles.

Authors also can join the platform in an authoritative type user and reply to the comments about their books. This feature also helps authors to develop themselves in writing according to their reader community.

This social cataloging platform also helps people to create communities about books by forum feature. In the forum page, users will be able to create threads which can be about a book, genre, author etc. In threads, users can post and reply comments related to that thread. Forum feature aims to unite people with common areas of interests about books.

2.1. Database as a System

This social cataloging platform needs to keep a lot of information and data which needs to be stored. User properties, book properties, profiles, comments, rates, likes, threads, posts etc. need to be kept by a database system which will be able to handle, keep and serve data with a good performance and memory efficiency. Database is an inevitable component of this kind of system where data needs to be kept, updated and accessed by different users concurrently. All of the relations between entities can be kept in a relational database environment which is a major part of this project.

3. Requirements

3.1. Functional Requirements

3.1.1. Users

- Users are able to register and login.
- Users will be able to track their books that they have read or will be read.
- Users may add each other as friends.
- Users are able to search for friends.
- Users will be able to comment and like the book progress of their friends.
- Users are able to create book lists.
- Users are able to create new Forum threads.
- Users are able to like Forum threads.
- Users are able to write comments to Forum threads.
- Users are able to edit their profile such as biography, username and password.
- Users are able to search books by filtering author, year, genre.
- Users are able to mark their progress in the system.
- Users are able to rate books out of 10.
- Users are able to comment on specified books.
- Users are able to recommend books to their friends.
- Users are able to report wrong information about books to librarians.

3.1.2. Authors

- Authors are able to register and login.
- Authors are able to reply user's comments about their own books.
- Authors are able to report wrong information about their books to librarians.
- Authors are able to publish their new books in the system.

3.1.3. Librarian

- Librarians are able to manage and verify book addition requests.
- Librarians are able to create weekly global challenges.
- Librarians are able to verify author accounts.
- On request by users or authors, they are able to edit incorrect information about books.

3.1.4. Moderation Panel

- This panel helps librarians to perform actions listed in 3.1.3.
- Panel is separated from regular user interface and authenticatie via regular login panel.
- This panel is for verifying librarians.

3.1.5. Forum

- In the forum, users are able to share their opinions about a book with a specified genre, year, or culture.
- In forum posts there will be like counters and comments.

3.1.6. Landing Page

- There will be signup and login options on the landing page.

- There will be an option to send email to the support team.

3.2. Non-Functional Requirements

3.2.1. User Experience

- Font size must be minimum 12px.
- Minimum button size must be 50x50 pixels.
- In the whole project the frontend is sticked to only one theme.
- A help page should be available in order to guide users.

3.2.2. Performance

- Database must be able to store a minimum of 1GB data.
- Latency must not exceed 1 seconds per operation.

3.2.3. Security

- The system will force users to set passwords that include a minimum of 8 characters and one special character.
- The system should not be vulnerable to SQL injection.

3.2.4. Reliability

- Except for maintenance, the system must be always online 7 days 24 hours.
- If any error occurs in the system, it should be logged.

3.3. Pseudo Requirements (Constraints)

- In the frontend part Javascript programming language will be used with React framework. In the backend part of the project Java programming language will be used with the Spring framework.
- For the SQL (Structured Query Language), MySQL language will be used.

4. Limitations

4.1. User

- Username and e-mail must be unique.
- A user can have a maximum of 500 friends.
- A user’s biography cannot exceed 400 characters.
- User IDs are assigned from 10000 to 99999 in order of registration.
- To register a user, email, username and password should be provided.

4.1.1. Librarian

- Username must be minimum 3, maximum 12 characters.
- Password must be minimum 8, maximum 32 characters.
- Librarians are not able to add users as friends.

4.1.2. Author

- A book is assigned to at most 10 authors.
- An author cannot have more than 1000 books.
- A book list must have max 50 books.

4.2. Challenge

- Minimum 2 users and a booklist is required to create a challenge.

4.3. Forum

- A forum thread cannot exceed 1200 characters.
- A forum thread comment cannot exceed 500 characters.

5. Conceptual Design (E/R Model)

Below is the Entity Relationship Diagram of our project. It also can be seen as full size from our web page which can be found in section 6.

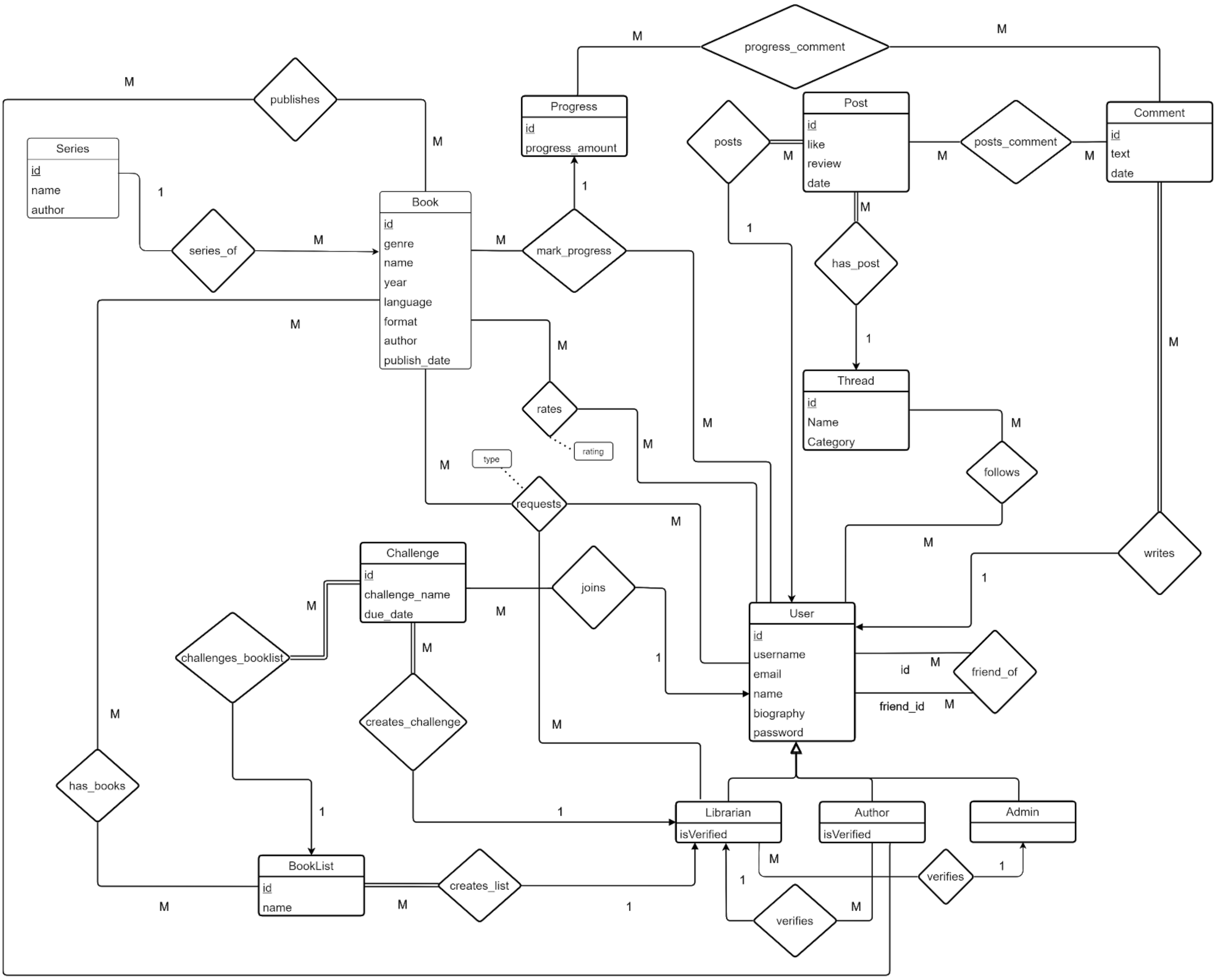

Figure 1: E/R Diagram

6. Project Web Page

- https://cs353group11.github.io/