Department of Computer Science & Engineering
UE17CS355 – Web Tech II Laboratory

Project Evaluation

Project Title   :   Library Information System

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SCRIPTORIUM

Scriptorium is an online **library information system** which allows easy access to books belonging to various genres. It also has a smart recommendation system in place, which suggests books to users based on their borrowing history.

- Without **logging in**to the website, a user can still **view and search all books** that are available
- Once a user logs in, they can **borrow upto three books** at a time, for a period of 21 days. There is a provision for them to renew or return the book before this period expires, beyond which they will be charged a nominal fee.
- Only a logged-in user can avail the **personalised book recommendations** feature, else, the latest books added to the library are recommended,
- Anyone, irrespective of whether they are a member, can **contribute books** to the library

TECHNOLOGIES

The following frameworks and technologies have been used to implement the library information system.

- Front End   - **Angular CLI**

- Backend   - **Flask**

- Storage   - InnoDB (accessed using the **MySQL** server), **Firebase**

- Basic Structure   - HTML, CSS and Javascript

TECHNIQUES

The following techniques have been used to implement the features in the library information system.

- Search Functionality   - **Submission Throttle** (AJAX Pattern)

- Backend Services   - **Rest API**

- Recommendations   - **Content-Based** Filtering

- Logging in   - **Local Storage**

- InterServer Communication   - **CORS**

RECOMMENDATIONS

Scriptorium has an **inbuilt recommendation** system which provides personalised recommendations to the user based on the **genre and keywords** of books they have borrowed before.

- For every user, a **history** is maintained, which is a record of all the books borrowed by them till now. The **genres** of these books is kept track of.

- Next, the genre of all the other books currently available in the library is considered and based on the **similarity** between the user's frequently borrowed genres and the currently available ones, a genre is chosen.

- From this, new books are **recommended** to the user.

THANK YOU