

Library Management System-2 Project Report

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Description Of Project

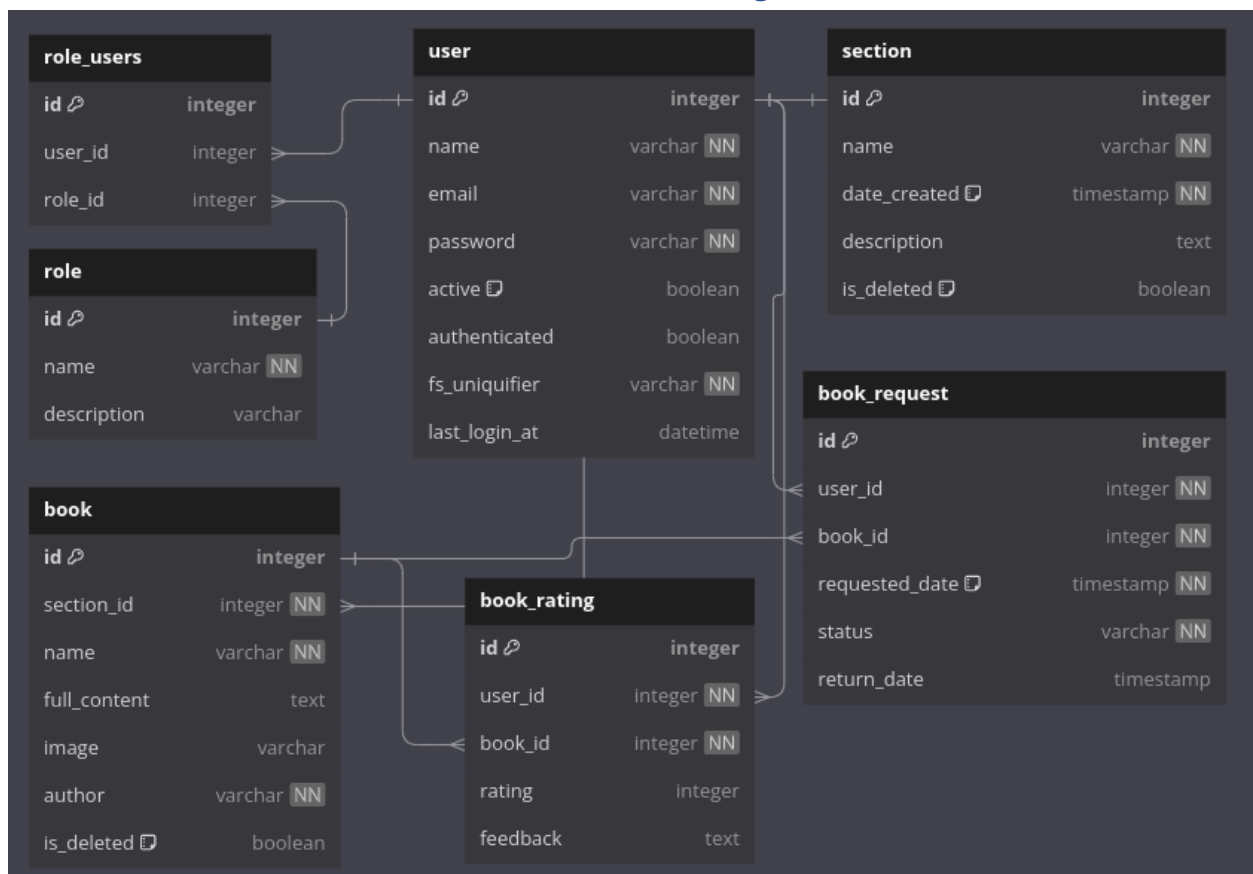
The purpose of this report is to describe the models and overall system design of the library management system app. Users of the website may look for sections and books and purchase from it. It also enables the admin to manage book's sections and books.

Technologies Used

Here are the technologies I used in this project.

- Python, HTML, Vue.js, Bootstrap, Flask, Flask-Login, Role Based Login, Flask-SQLAlchemy, Chart.js, SQLite, Celery, Redis
- Python is the core programming language used.
- Vue and Flask is the main framework used for the Web-app.
- Login-Manager is used for managing multiple user login and keeping a session alive.
- Flask-SQLAlchemy is the SQL toolkit used to connect with the database file.

DB Schema Design



Architecture and features

Admin Management

Admin can manage sections books and Users. Before renting any book request will come to admin, once he approves it after that only a user can download or view the full book.

Section Management

Section can only be managed by admin, it can create, edit, and delete them. Users can view a list of all books and search them by entering a book name and also filter them by section. No section can be deleted unless all the books associated with it is deleted first.

Book Management

Admin can manage books by creating, editing, and deleting them. They can view a list of all books of a particular section and can filter them based on the name. Admin can Revoke access of books for users.

Insights / Summary

Admin can look in summary that how many books are there in each section by bar graph.

Search for Books / Section

Users can filter for Section and search for books by title, author-name, content. The search function returns results based on the search criteria and displays them on a web page. User can go to my-books and can see what books they have rented, which books approval they already have, which books they have already completed.

Book Return and feedback

Users can rent books and after 7 days they have to return it otherwise access will be revoked automatically. Feedback and rating is must for books by every user once they are returning it.

Daily/Weekly/Monthly Reminders

Admin will get the weekly report of the LMS app and user will get daily reminders to visit the website and monthly reports of their statistics on their mail.

Conclusion

The Library Management System app designed in this report provides a comprehensive solution for users to rent books and for admins to manage sections and books. The platform's models - Section and Book - allow for easy storage and management of data related to section, book. The system design is user-friendly, and the search and returning functions are straightforward and intuitive. Additionally, the platform provides valuable insights to the admin through features such as summary. Overall, this Library Management App is an efficient and reliable solution for both users and admins.

Video Link:  **MAD2-Project**