

ZoroLibrary - Library management system

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Description:

The objective of this project is to build a library management system using the concepts and frameworks learned during Modern Application Development - 2. The name of the project is ZoroLibrary inspired by Kindle and took references from the online bootcamp conducted by IITM.

Technologies Used:

The main technologies used in this application are **Flask, Flask-Sqlalchemy, SQLite, Redis, Celery** and **Python**. **Flask_Sqlalchemy** was chosen to interact with the underlying **SQLite** database which makes the application portable. **VueJs** was used for templating the user interface.

DB Schema Design:

This application uses 5 tables with proper integrity constraints in an SQLite database named ZoroLibrary.db which is present in the instance folder to keep track and manage various forms of data.

The full schema is present in the backend folder of the application named as **Schema.pdf**.

Architecture and Features:

Before running make sure you have all the modules present in the **requirement.txt** are installed.

Initialize the backend server first with **python3 app.py** command.

Frontend server with **npm run serve** command.

For celery workers, use **celery -A app.celery worker --loglevel=info** command.

For celery beat, use **celery -A app.celery beat --max-interval 1 -l info** command.

Also initialize redis and mailhog, to understand how automated mails are working.

After initializing all these commands, open localhost 8080 from frontend. And the application starts working fine.

The app supports multiple users, they can request books, review them and return them. If any user who has an overdue will be flagged by the admin. The admin can check out all the stats about how the application is working. The app also enables automated mails, whenever a book requested is approved or rejected and also daily reminders to the users to login. The reviews and statistics are often dynamically changed.

Here, we're assumed that there is only one admin. The credentials for Admin are as follows

Mail: librarian@gmail.com and **Password:** admin123

Video Presentation: https://youtu.be/_w-yKgc1sHw

