Library Management System

MAD 01 PROJECT REPORT

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As a *student*, I am passionate about problem solving and programming in *Python* .

Project Overview:

Description :

This web app functions as an *e-book library* using Python with Flask framework, Bootstrap CSS for styling , Pdfjs for previewing e-book and SQlite DB for storage . There are two user types: Admin and Standard user. Admin can add, edit,
remove books as well issue or revoke books from the users. Users can request books for preview or buy it by paying a price. Users can also provide feedback for the books they bought.

Goals :

To demonstrate M.V.C. Architecture and Database systems knowledge.

Technologies used :

Python(flask, flask-sqlalchemy, sqlalchemy, flask_restful, matplotlib, requests), Javascript(PDF.js).
Python is the core programming language used in this app.
flask is the framework of this web app.
flask-sqlalchemy is the SQL-toolkit used to connect with the DB file.
flask_restful package allows to create a RESTful API.
JavaScript is used with PDF.js to preview PDF files in web browser.

Video Presentation : *LINK*

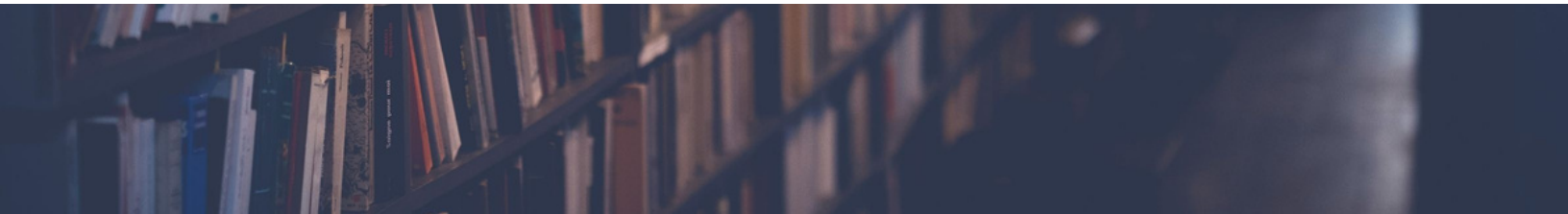
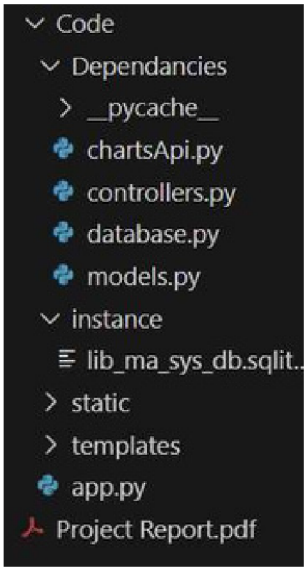


Chart API

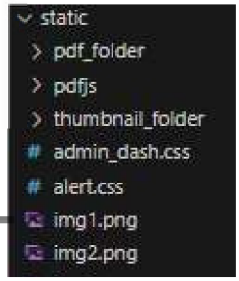
- Implemented API with GET method for generating Pie charts and other user data for Admin and Users .
- API returns Pie chart of User ratings, Paid vs Preview data along with data of Top rated books and Most requested book for Admin. For users, Pie chart of only Paid vs Preview and other user data are returned through this API.

Project Code Architecture



Under Dependencies folder,
-chartsApi.py contains the API structure.
-controllers.py contains all the required endpoints.
-database.py contains the DB .
-models.py contains all the DB models.

Under static folder,
-pdf_folder, where the e-book pdf will be stored.
-thumbnail_folder stores the thumbnail image of e-book.
-pdfjs folder contains the local configuration of pdfjs.
-css files, other background images...



Under templates folder, all the html files are stored.

Under instance folder, the SQlite db is stored.

Read app.py file to start the server.