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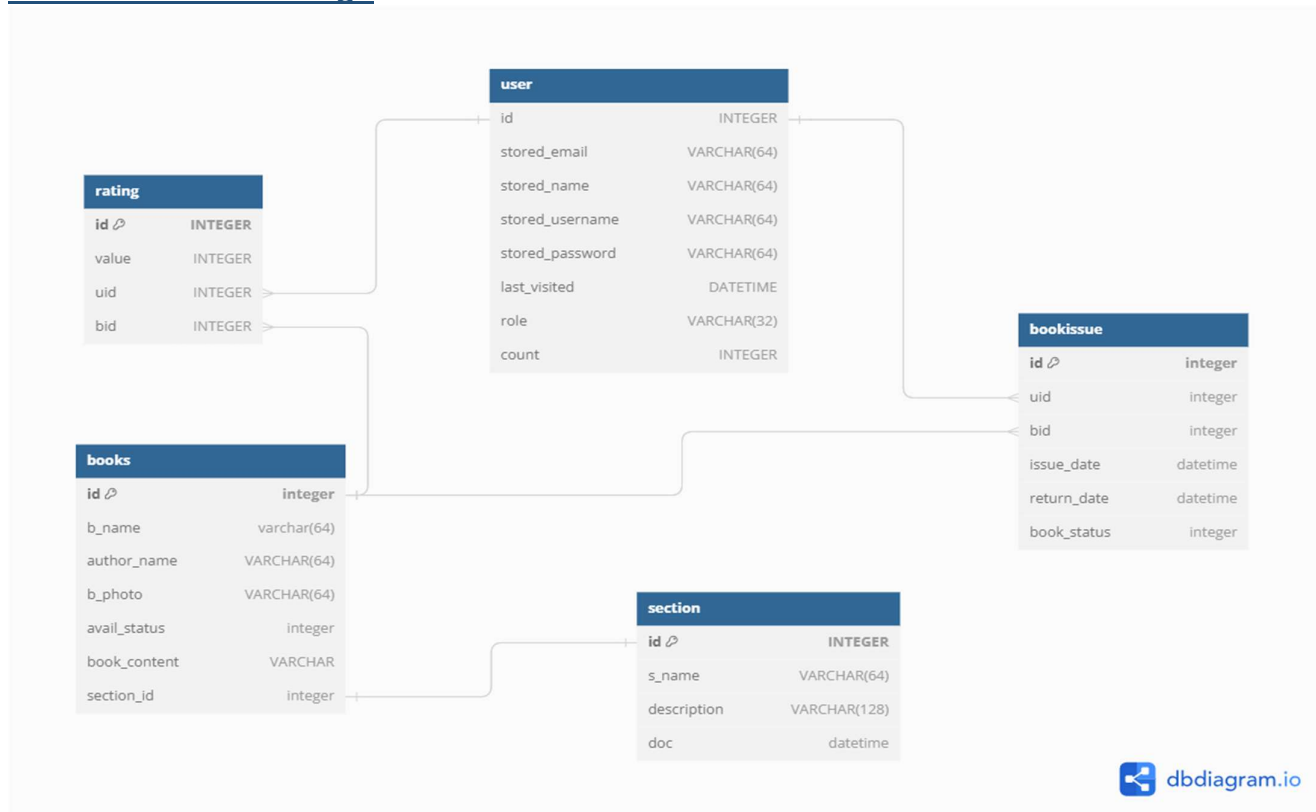
Description

BookMagent is a library management system application. It is used for requesting & reading books. A user needs to register and login to access the application. A librarian has entire control over the application

Technologies Used

- **Flask:** for basic backend Implementation(APIs)
- **VueJS** for UI
- **Redis and celery** caching ,batch jobs.
- **SQLite** for database
- **BootstrapVue** for styling
- **Flask_sqlalchemy:** for implementing Database.
- **JWT :** for implementing the login functionality, user session management(token based authentication)
- **datetime:** to storing the date and time (date of creation).
- **Flask_Login:** for implementing the login functionality
- **werkzeug.security:** for hashing the passwords
- **werkzeug.utils:** secure_filename to get unique names
- **Flask-Restful:** to create Apis
- **matplotlib:** for plotting graphs

DataBase Schema Design



API Design

There are 2 APIs

- **BookAPI** : It has two end points
 - **/api/books** : With this endpoint, we can **read** all books details in database (authentication not need), **add** a book (authentication required)
 - **/api/book/<int:user_id>** : With this endpoint, we can get book with input id, **update** book with respective input id, **delete** book with respective input id(authentication required)
- **SectionAPI** : It has four endpoints
 - **/api/sections**: With this endpoint, we can **read** all section details in database.
 - **/api/section/<int:section_id>** : With this endpoint, we can **read** song with respective input id We can also **update and delete** respective section associated with this endpoint.

Features

- **login & sign-up system**: Here user should fill in details for creating a new account and after that user will be able to do login. Both user and admin have same login page. Admin cannot be created
- **User Home Page**: All books, sections ,owned books & returned books will be displayed in this page. A user can download a assigned book by paying some money. A user can also give rating to his past reading.
- **User Profile Page**: Page to view user's details and update password
- **Search**: To search books, sections based on book names, author names and section names.
- **Librarian Dashboard**: Contains book/section management which can be used for following purposes.
 - Add a book, edit a book, issue a book to user, revoke a book from user and delete a book.
 - Add a section, add books to existing sections, edit a section and delete a section.
 - Download csv file that contain data of issued book from two particular dates.(Export Jobs)
- **APIs**: Three APIs Books, Sections with CRUD functionalities

Also, backend jobs like successful registrations mails and password change mails are also implemented

Daily remainder jobs are performed at 7pm daily. Monthly activity report is sent every user on 1st of every month.

Video :

https://drive.google.com/file/d/1v5ri-Drzn8PgBhg7mKTwCU1jKd4nHyFM/view?usp=drive_link