MAD Library Management System Project Report

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Gdrive link: https://drive.google.com/file/d/1NdZiVfltaaQOsWBkzFKKpSgUq5Z267MZ/view?usp=sharing

Schema for my database:

Readers Database:

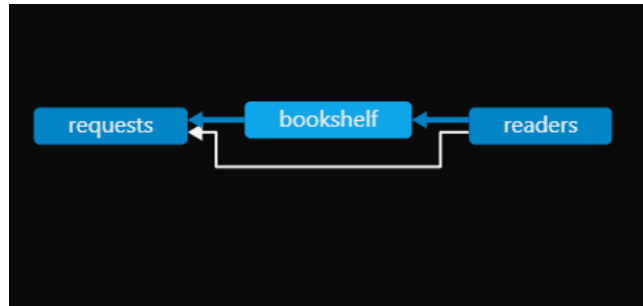| Field	Type	Description
email	String	Primary key, Email address
username	String	Username
password1	String	stores Hashed password
is_admin	Boolean	Indicates if the user is an admin
is_librarian	Boolean	Indicates if the user is a librarian
books_limit	Integer	Indicates the book limit per user

Bookshelf Database:

Field	Type	Description
isbn_no	Integer	Primary key, ISBN number
title	String	Shows title of books
author	String	Shows name of author of books
Genre	String	Gives genre of the books
Synopsis	String	Gives a synopsis about book
Uploader	String	Stores info about uploader of book in database
File_name	String	Stores file name
File_path	String	Stores info about where file is located

Request Database:

Field	Type	Description
Request_id	Integer	Stores request id
Book_id	Integer	Stores isbn no of book
Reader_id	String	Stores email of reader who requested
Request_date	Date	Stores date when it was requested
Issue_date	Date	Stores date when request was accepted
Return_date	Date	Stores date when book was supposed to be returned
return_status	Date	Shows the status of book
Borrowed_status	Date	Shows status of book
Book	Relationship	It's a relation between request and bookshelf
Reader	Realationship	It's a relation between request and readers

Schema:

Working of my Project:

My project heavily uses Bootstrap templates and icons to make it more aesthetically pleasing and to make it seem smooth flowing, I used bit of css to align some elements and no javascript was used in this project.

Some Features of my project:

Stored Books: Books can be stored as PDF's or as in TXT files and both would work similarly in my Project

Uploading Books: Books can be uploaded by Admin or any librarian and it stores info like book's isbn no, title, genre, author, synopsis and uploader name.

Admin and librarian: a default admin is created whenever app is booted and its name and password can be changed via "admin.py", new librarian can be assigned via users list page.

Request: any user can request books to read but he first needs to log in to be able to request any books. And librarian or admin holds the right to accept or deny the request and also revoke access to a certain book.

Trending books: my project consist of a trending page which shows what are the books which are currently requested by majority of people.

Search feature : There is a search feature on home where you can search books based on isbn no, genre, author and title.

File directory:

```
project
├── instance
│   └── library_database.sqlite3
├── lib_manager
│   ├── admin.py
│   ├── books
│   │   ├── 1984.pdf
│   │   ├── Harry_Potter_and_the_Philosophers_Stone.pdf
│   │   ├── Pride_and_Prejudice.pdf
│   │   ├── The_Great_Gatsby.pdf
│   │   └── To_Kill_a_Mockingbird.pdf
│   ├── forms.py
│   ├── model.py
│   ├── routes.py
│   ├── templates
│   │   ├── add_book.html
│   │   ├── base.html
│   │   ├── book_req.html
│   │   ├── home.html
│   │   ├── info.html
│   │   ├── librarians.html
│   │   ├── login.html
│   │   ├── register.html
│   │   ├── request.html
│   │   ├── static
│   │   ├── trending.html
│   │   └── user.html
│   └── __init__.py
└── run.py
```