

MAD 2 Project Report

Title : Library Management System

Student Name : Gurneet Kaur Bhuller

Student ID : 21f2000672@ds.study.iitm.ac.in

App Name : The Library

Database Models:

- **User:**
 - id (primary key)
 - role (0 for regular users, 1 for admins)
 - pending_book_count
 - approved_book_count
 - returned_book_count
 - created_by
 - name
 - email
 - password
 - Interests
 - last_visited
 - created_on
 - pseudo_delete
- **Book:**
 - id (primary key)
 - name
 - view_access_link
 - edit_access_link
 - description
 - date
 - price
 - stock
 - rank
 - count_of_pending_req
 - author
 - section_name
 - created_on
 - created_by
 - pseudo_delete
- **Section:**
 - id (primary key)

- name
- date
- description
- created_on
- created_by
- pseudo_delete
- **Register:**
 - id (primary key)
 - username
 - book_name
 - section_name
 - author
 - request_status (0 for pending, 1 for approved, 2 for rejected, 3 for returned)
 - user_id
 - book_id
 - date_issued
 - requested_date
 - return_date
 - created_on
 - created_by
 - pseudo_delete
- **Feedback:**
 - id (primary key)
 - user_id
 - book_id
 - rate
 - review
 - created_on
 - created_by
 - pseudo_delete

Application Flow:

1. **Home Page:**
 - Options for Admin sign-in, User log-in, and User sign-up.
2. **User Home Page:**
 - Navigation buttons: Profile, Categories, Order History, Cart, Edit Profile, and Logout.
3. **Categories Page:**
 - Displays various category boxes. Clicking a category navigates to a page with products specific to that category, showing details such as name, description, price, and quantity adjustment options. Includes an "Add to Cart" button.
4. **Cart Page:**

- Shows product details and total order amount. Placing an order clears the cart, records the order in history, and updates the database.
- 5. **Admin Dashboard:**
 - Options for: Categories (view/edit/delete), Add Category, Edit Category, Delete Category, Add Product, Edit Product, Delete Product, See Users, See Orders, and Logout.
- 6. **Admin Functionalities:**
 - Admins can add, edit, and delete categories and products, manage users, and view orders.
- 7. **Application Theme:**
 - Subdued beige background with pink and light blue panels for an intuitive user experience.

Celery Tasks:

1. **Daily Reminder:**
 - Sends reminders to users who have not borrowed books for a long time, asking them to visit the library.
2. **Monthly Report:**
 - Sends a monthly reading report to users, detailing the books they have borrowed, including book name, author, and section name.
3. **Prepare CSV File:**
 - Generates a CSV file of user data, books, sections, and registrations. Sends the file to the librarian via email and then deletes the file.

Celery Beat Schedule:

- **Daily Reminder:** Runs every Friday at 10:25 PM.
- **Monthly Report:** Runs on the 3rd of every month at 10:25 PM.
- **Quick Task:** Runs every minute for testing purposes.

Video Presentation:

A comprehensive video presentation detailing the project's features, functionalities, and user interaction is available through the following link: [Library Management System V2 Video](#).

The Library Management System V2 project effectively implements both user and admin functionalities, ensuring a seamless shopping experience and efficient management of products, categories, and orders. The intuitive design and well-organized database models contribute to a user-friendly application