

MISSOURI STATE UNIVERSITY DEPARTMENT OF COMPUTER SCIENCE



Hostel Management

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Project Description

Project Summary

While we pursuing a degree in India, the rising number of educational institutions has led to a corresponding increase in private hostel facilities for student accommodation. However, we have personally encountered several challenges: The primary issue was relying on offline options for booking facilities, which created multiple difficulties:

- 1. Offline booking options for private hostel rooms near the university involve waiting for room assignments for a very long time.
- 2. The absence of an online system for booking private study rooms within the hostel will always give us trouble in emergency situations.
- 3. Reporting lost items in the hostel was restricted to offline channels, making us wait until the next working day to register a complaint.
- 4. Lack of online access to view whether the books are available in the library for my specific stream will always be an irritation to physically check.

To address these challenges, we want to develop a simple and clean web application that resolves the issues. This web app will offer an online booking system for hostel rooms, study rooms, a complaint registration process, and an online system to check if the books are available for the specific stream. This ensures a more convenient and accessible hostel management system.

Software Features

End User

Feature 1

Login – For the login, you must log in first before you can access the system.

Feature 2

Sign Up – For the sign-up, you will fill in the forms, such as your username, password, and email address.

Hostel Room Booking Module

Feature 1

End-users can book a hostel room by sending a "Request" to the admin user.

Feature 2

End-users can book a hostel room monthly or daily.

Software Features

End User

Hostel Room Booking Module

Feature 3

End-users can view whether the request is accepted or rejected by the administrator.

Study Room Booking Module

Feature 1

End users can book the hostel study room monthly or daily.

Posting Missing Items Module

Feature 1

End user can post the missed items by identifying name of the item, item description, contact information, uploading lost item image.

Viewing Paid Transactions Module

Feature 1

End user can view all the transactions that they made for booking hostel room and study room.

Payment Module

Feature 1

After end user sends a request for hostel room booking, the administrator can see the request and upon the availability of rooms, admin will accept or reject the request.

If admin accepts the request, end user will get an option to pay. If admin rejects the request, end user will not get the option to pay.

Software Features

End User

Fetching Library Books Module

Feature 1

End users will have the capability to fetch all the books for their specific stream and their availability status.

Feature 2

End users will be authenticated by authentication layer.

Feature 3

End users are protected by authorization layer. So, end users are restricted to perform only fetch operations.

Feature 4

End users are restricted to fetch 10 times per minute.

Admin User

Feature 1

Login – For the admin login, you must login first before you can access the system.

Feature 2

Sign Up—For the admin sign up, in-built Django framework provides an option for creating superusers or admin users.

Hostel Room Management Module

Feature 1

admin user can add rooms by specifying Room No and No of beds.

Feature 2

admin user will also have to an option to view all his added rooms.

Software Features

Admin User

Viewing New Requests Module

Feature 1

Admin user can accept or reject the request made by the end user by checking the availability of the room.

Viewing Paid Transactions Module

Feature 1

admin user can view all the transactions that are made by the end users.

Managing Library Books Module

Feature 1

admin user will have capability to create, Read, update, and Delete the books, streams, and book availability status.

Feature 2

admin users are protected by authentication layer.

Feature 3

admin users are protected by authorization layer. So, they can perform create, update and delete operations.

Feature 4

Admin users are restricted to fetch 20 times per minute.