

**A
Project Report
On
“HOSTEL MANAGEMENT SYSTEM”**

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Under the guidance of
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Submitted to
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CSE204: Project-I
of 3rd Semester of B.Tech

Submitted at



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Faculty of Technology & Engineering, CHARUSAT

Devang Patel Institute of Advance Technology and Research (DEPSTAR)

At: Changa, Dist: Anand – 388421

October 2024



CERTIFICATE

This is to certify that the report entitled “**HOSTEL MANAGEMENT SYSTEM**” is a bonafied work carried out by **Kasodariya heet sanjaybhai (23DCS045)** under the guidance and supervision of **Prof. Mohini darji** for the subject **Project-I (CSE204)** of 3rd Semester of Bachelor of Technology in **Computer Science & Engineering** at Devang Patel Institute of Advance Technology and Research (DEPSTAR), Faculty of Technology & Engineering (FTE) – CHARUSAT, Gujarat.

To the best of my knowledge and belief, this work embodies the work of candidate himself, has duly been completed, and fulfills the requirement of the ordinance relating to the B.Tech. Degree of the University and is up to the standard in respect of content, presentation and language for being referred to the examiner.

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DECLARATION BY THE CANDIDATES

We hereby declare that the project report entitled “**HOSTEL MANAGEMENT SYSTEM**” submitted by us to Devang Patel Institute of Advance Technology, Changa in partial fulfilment of the requirements for the award of the degree of **B.Tech Computer Science & Engineering**, from the Department of Computer Science & Engineering, DEPSTAR, FTE is a record of bonafide CSE204 Project-I carried out by us under the guidance of **Prof. Mohini darji**. We further declare that the work carried out and documented in this project report has not been submitted anywhere else either in part or in full and it is the original work, for the award of any other degree or diploma in this institute or any other institute or university.

(Kasodariya heet sanjaybhai – 23DCS045)

(Ghevariya prince dineshbhai – 23DCS033)

(Chhaya dharohar parasarbhai – 23DCS016)

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

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TABLE OF CONTENTS

ABSTRACT	i
CHAPTER 1: INTRODUCTION	1
1.1 Project Overview	1
1.2 Project Scope and Context	2
1.3 Aim, Objective, and Motivation	3
1.4 Methodology	4
1.5 Key Outcomes and Interpretation	5
CHAPTER 2: LITERATURE REVIEW	7
2.1 Review of Related Work and Existing Solutions	7
2.2 Comparative Analysis of Current Systems.....	8
2.3 Distinction and Advancement of This Project.....	9
CHAPTER 3: SYSTEM ANALYSIS	10
3.1 Functional Requirements	11
3.2 Non-Functional Requirements	12
CHAPTER 4: TECHNOLOGY STACK	13
4.1 List of languages, frameworks and tools.....	13
4.2 Importance of selected tools	16
CHAPTER 5: SYSTEM DESIGN	17
5.1 Use case diagram	17
5.2 Architecture diagram	18
5.3 Database design	19
5.4 UI/UX Design	20
CHAPTER 6: IMPLEMENTATION	20
6.1 Modules Overview	20
6.2 Features developed	21
6.3 code snippets	22
CHAPTER 7: TESTING	26
7.1 Types of Testing	26
7.2 Testing tools	27
7.3 Test cases and result	28
CHAPTER 8: RESULTS	30
8.1 Screenshot of the final product.....	30
8.2 Functional explanation	31
CHAPTER 9: CHALLENGES FACED	32
9.1 development Challenges	32
9.2 Solutions and workarounds.....	33
CHAPTER 10: CONCLUSION AND FUTURE SCOPE	35
10.1 Summary of Project Achievements	35
10.2 Future features	36
REFERENCES	37

ABSTRACT

The Hostel management system is a digital solution designed to simplify hostel administration and improve the experience for both students and administrator. It addresses the limitations of manual systems by providing a user-friendly online platform. With this system, students can easily find all hostel facilities, book their room by administrator with documents and manage rooms. While administrators can efficiently handle hostel room data, payments and check-in/check-out processes. Key features include online payments for hostel fees, food fees, light bill fees, search filters, booking confirmations, user accounts, feedback collection, leave applications and a help section for students. Developed using HTML, CSS, JavaScript and PHP with a local server, the system offers a secure and reliable platform. By automating tasks and providing a database, this system significantly reduces manual data, improves efficiency, and updates overall user satisfaction. It makes hostel management very easy and makes it a valuable tool for institutions seeking to streamline their accommodation processes.

CHAPTER 1: INTRODUCTION

1.1 PROJECT OVERVIEW

- Students often struggle to find affordable and well-organized hostel rooms.
- Managing hostels using manual methods takes a lot of time and increases the chances of mistakes.
- There is no simple system to handle tasks like bookings, payments, and check-ins/check-outs efficiently.
- This project addresses these issues by providing an online solution that is easy to use for both students and administrators.

1.2 PROJECT SCOPE AND CONTEXT

- The project is focused on student hostels, which are essential for students needing convenient accommodation.
- Most hostels still rely on manual methods to manage tasks, making it harder for both students and staff.
- A digital system can simplify hostel management by bookings, payments and record-keeping.
- This project aims to create a web-based system that helps both students (who need rooms) and administrators (who manage the hostel).
- The system will reduce waiting time, minimize errors and improve overall service quality.

1.3 AIM , OBJECTIVE AND MOTIVATION

- **Aims:**
 - To create a user-friendly system that simplifies booking and management tasks.
 - To help students easily find and book hostel rooms.
 - To give hostel administrators a better way to manage bookings, payments and other tasks.
- **Objectives:**
 - Provide an easy online platform for students.
 - Allow administrators to manage records and data efficiently.
 - Securely store and process all data to keep it safe.
- **Motivation:**
 - The system saves time, reduces errors and improves the experience for students and staff.
 - It brings hostels into the digital age, making management much simpler and faster.

1.4 METHODOLOGY

- **Step 1:** Understand the needs of both students and administrators for a smooth experience.
- **Step 2:** Develop the interface using HTML, CSS and JavaScript to make it visually appealing and easy to navigate.
- **Step 3:** Use PHP for backend processes to manage data efficiently.
- **Step 4:** Integrate a database with local server to store user, room and booking information securely.

- **Step 5:** Test the system to ensure it works smoothly and meets all project goals.

1.5 KEY OUTCOMES AND INTERPRETATION

- The system provides a quick, reliable way for students to notify all things and for administrators to manage them.
- It significantly reduces the manual workload for hostel staff, allowing them to focus on other important tasks.
- Students benefit from a faster booking experience with fewer errors and more control over their accommodations.
- This digital solution can be used as a model for other hostels, showing how technology can improve accommodation management.

CHAPTER 2: LITERATURE REVIEW

2.1 REVIEW OF RELATED WORK AND EXISTING SOLUTIONS

- Current hostel systems often use basic or manual processes.
- Most systems include basic features like room booking and check-in.
- Many existing systems are hard to use and lack student-friendly options.
- Common limitations include no online payments and limited room management.
- Understanding these gaps helps us design a better system.

2.2 COMPARATIVE ANALYSIS OF CURRENT SYSTEMS

- We compare popular hostel management systems to find strengths and weaknesses.
- Some systems have manual booking and not have any online system.
- Others lack important features like detailed student data management and provide whole information to administer.
- Our goal is to learn from these systems and build a more user-friendly and efficient platform.

2.3 DISTINCTION AND ADVANCEMENT OF THIS PROJECT

- Our project is designed specifically for administer needs and some student need.
- It includes an easy-to-use interface, online payments and some other process like leave process, query or help process also.
- Students can give feedback on food, rooms, and facilities, helping improve the system over time.
- This project offers a modern solution that directly addresses gaps in current systems.
- Students can pay their fees (room, food, and utilities) online avoiding long queues and making the process faster.

CHAPTER 3: SYSTEM ANALYSIS

3.1 FUNCTIONAL REQUIREMENTS

1. Student Login : Allows students to log in and view personal details.
2. Room Management : Room assignments based on availability.
3. Fee Management : Displays fee details and allows online payments.
4. Feedback Collection : Lets students give feedback on food, rooms and other facilities.
5. Notice Board : Displays important hostel notices.
6. Leave Application : Students can apply for leave with dates and particular reasons.
7. User Registration : New students can register and get room assignments.
8. Track Daily Expenses : Record and view daily costs like food and utilities.
9. Calculate Light Bill : Auto-calculate electricity bill based on usage.
10. Search Students : Find student details for get information.
11. Query Submission : Allows students to submit queries or concerns to hostel management.
12. Help Section : Provides a guide for students to resolve common issues and FAQs.

3.2 NON-FUNCTIONAL REQUIREMENTS

1. Usability : Easy and simple to use for students and staff.
2. Reliability : System should work smoothly without errors.
3. Performance : Fast loading times and quick task execution.
4. Security : Keeps user data safe and secure.
5. Scalability : Handles more users and data as needed.

CHAPTER 4: TECHNOLOGY STACK

4.1 LIST OF LANGUAGES, FRAMEWORKS AND TOOLS

- Front-end:
 - HTML : To structure the web pages.
 - CSS : To style the web pages.
 - JavaScript : To add interactivity and dynamic features.
- Back-end:
 - PHP : To handle server-side logic and database interactions.
- Database:
 - MySQL : To store and manage user data, room information, and booking details.
- Tools:
 - Visual Studio Code : A popular code editor for writing and debugging code.
 - XAMPP : A local development environment to test the application.

4.2 IMPORTANCE OF SELECTED TOOLS

- Front-end Technologies:
 - HTML, CSS and JavaScript are fundamental for creating web pages.
 - They allow us to design user-friendly interfaces and provide a very usefull user experience.
- Back-end Technology:
 - PHP is a powerful language for server-side scripting.
 - It enables us to handle user requests, process data and interact with the database.
- Database:
 - MySQL is a reliable and efficient database system.
 - It helps us store and manage all the necessary information for the hostel management system.
- Tools:
 - Visual Studio Code provides features like code highlighting, autocompletion and debugging, making development more efficient.
 - XAMPP simplifies the setup process for local development, allowing us to test the application without deploying it to a live server.

CHAPTER 5: SYSTEM REQUIREMENT/SCREEN

5.1 USE CASE DIAGRAM

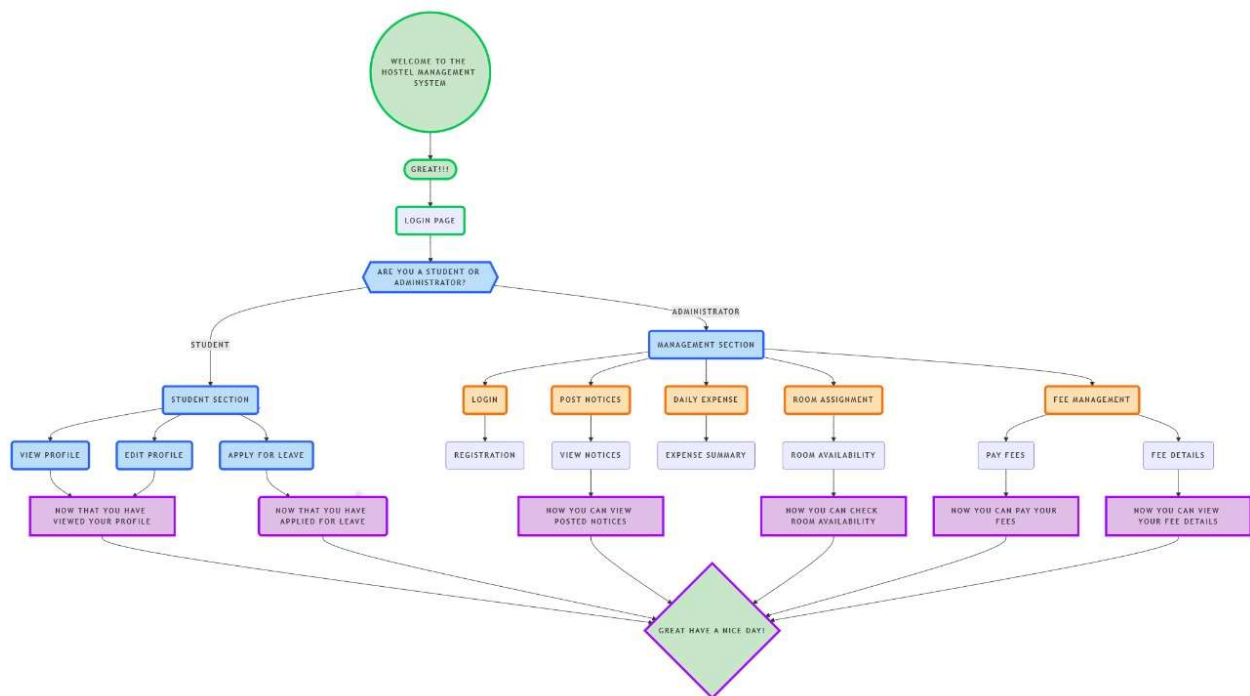


Fig 5.1 Use case diagram

5.2 ARCHITECTURE DIAGRAM

A simple three-layer architecture where the frontend interfaces with the PHP backend, which in turn interacts with the MySQL database.

5.3 DATABASE DESIGN

- Tables: List all the tables that will be used in your database, such as:
 - Students Table: Contains all the details about the students.
 - Rooms Table: Contains details about the rooms available in the hostel.
 - Fees Table: Contains fee details for each student.
 - Notices Table: Contains notices posted by the admin.
 - Leave Applications Table: Contains leave applications submitted by students.

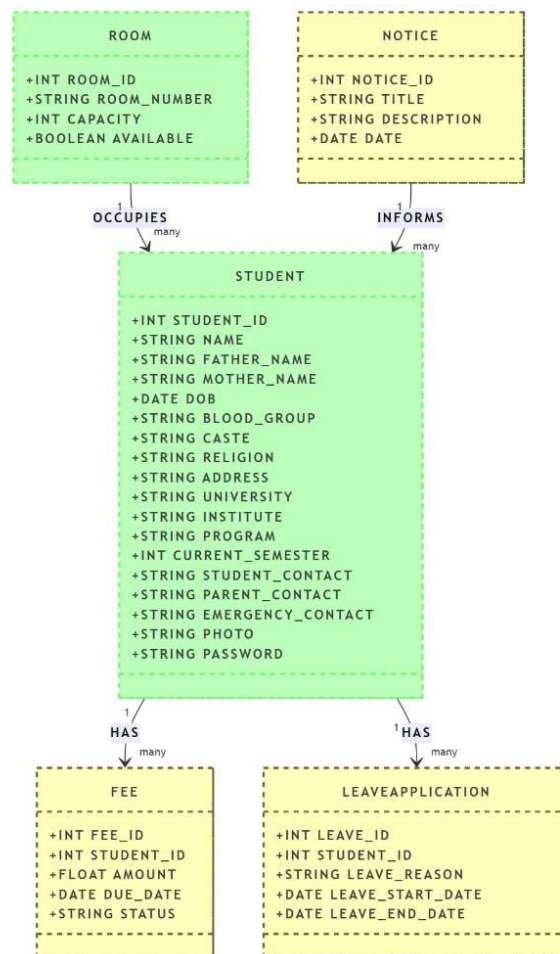


Fig 5.2 ER diagram

5.4 UI/UX DESIGN

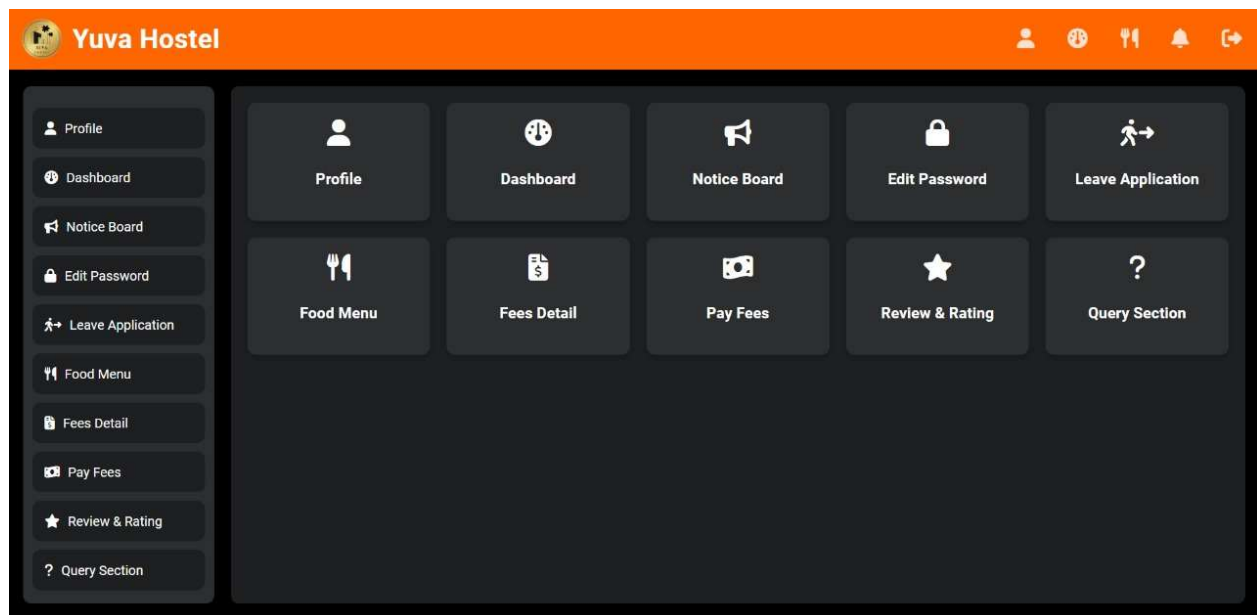
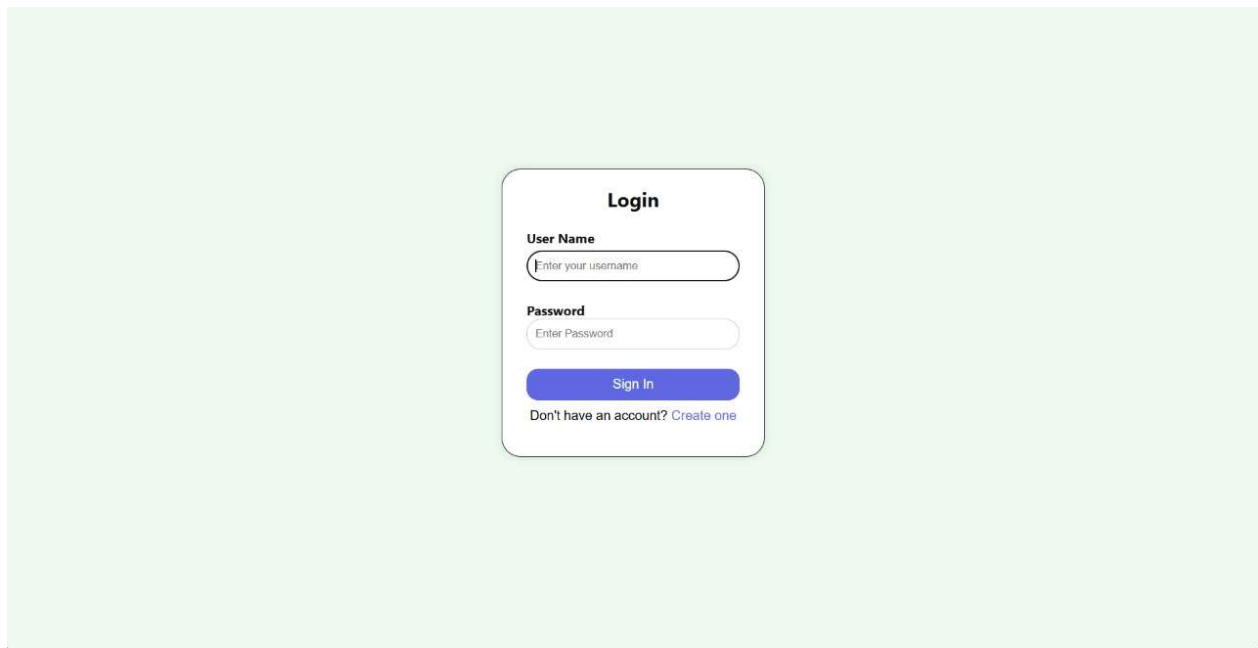


Fig 5.3 UI/UX design of student section



The image shows a login form centered on a light green background. The form is a white rounded rectangle with a black border. At the top, the word "Login" is written in bold black text. Below it, there are two input fields: "User Name" with a placeholder "Enter your username" and "Password" with a placeholder "Enter Password". Both fields have rounded ends and a light gray border. Below the password field is a blue button with the text "Sign In" in white. At the bottom of the form, there is a link that says "Don't have an account? [Create one](#)".

Fig 5.4 UI/UX design of login section

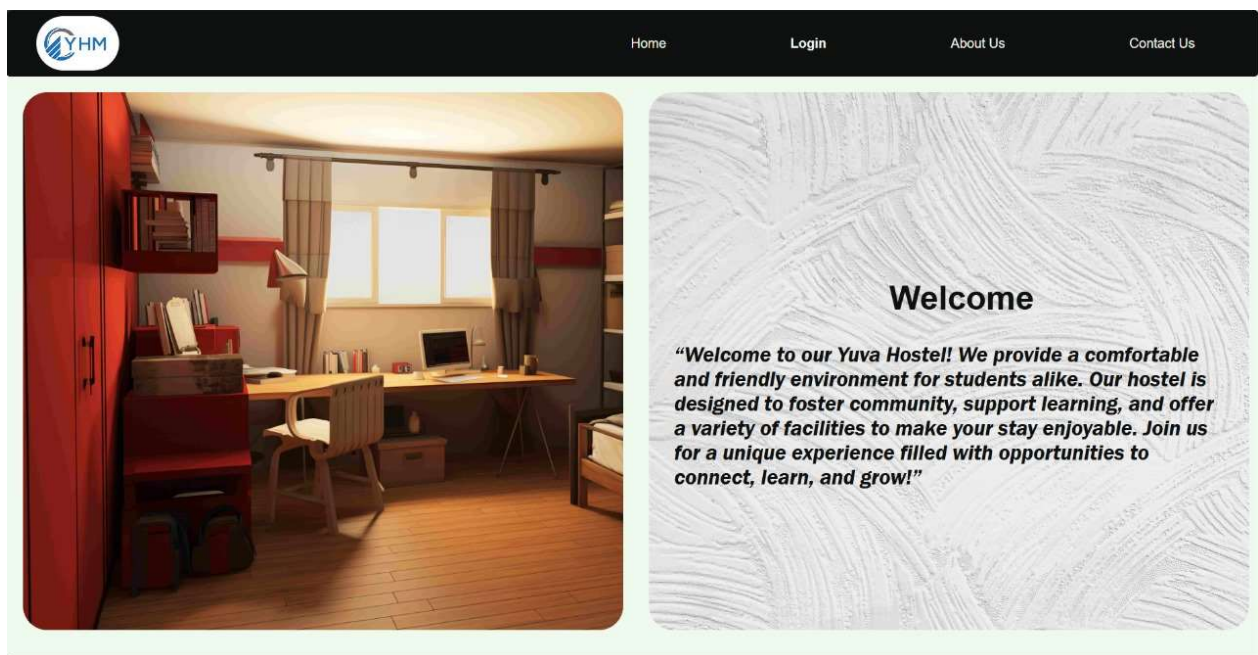


Fig 5.5 UI/UX design of welcome page

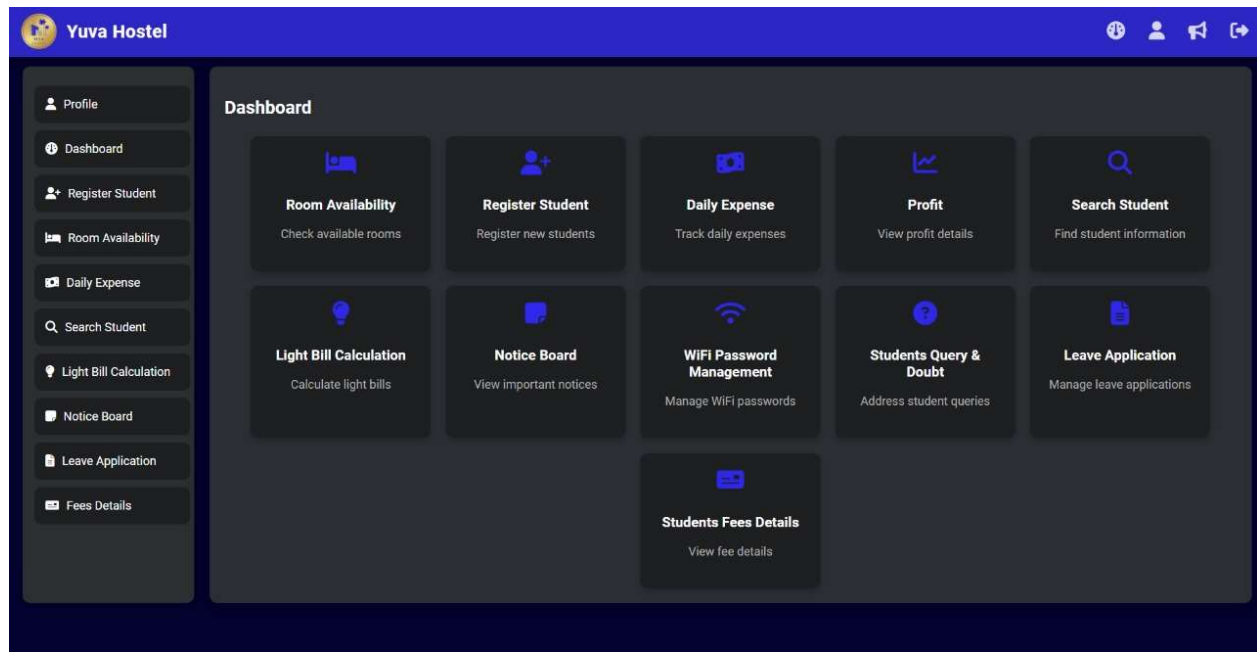


Fig 5.6 UI/UX design of Management section section

CHAPTER 6: IMPLEMENTATION

6.1 MODULES OVERVIEW

- Authentication
 - Secure login for students and administrators
 - Registration for new students
- Profile Management
 - View personal information
- Room Management
 - Check room availability
 - Assign rooms to students
- Fee Management
 - Online fee payment
- Notice Management
 - Post notices for students
 - View posted notices
- Leave Management
 - Apply for leave
- Expense Management
 - Record daily expenses
 - View expense reports
- Query Management
 - Submit queries
- Light Bill Calculation
 - Calculate electricity costs
- Dashboard
 - Overview of the system
 - Quick access to other modules

6.2 FEATURES DEVELOPED

- User Authentication
 - Secure login and registration
- Profile Management

- View and update profile details
- Room Management
 - Check room availability
 - Assign rooms
- Fee Management
 - Pay fees
- Notice Management
 - Post notices
 - View notices
- Leave Management
 - Apply for leave
- Dashboard
 - System overview
 - Quick links to different sections

CHAPTER 7: TESTING

7.1 TYPES OF TESTING

1. Unit Testing

- Authentication Module:
 - Test successful login and failed login attempts with invalid credentials.
 - Verify password hashing and verification mechanisms.
- Profile Management Module:
 - Test profile creation and deletion.
 - Verify data validation and error handling.
- Room Management Module:
 - Test room allocation and deallocation.
 - Verify room availability checks.
- Fee Management Module:
 - Test fee calculation and payment processing.
 - Verify receipt generation and payment history tracking.
- Notice Management Module:
 - Test notice posting, editing and deletion.
 - Verify notification delivery to users.
- Leave Management Module:
 - Test leave application submission and approval/rejection.
- Expense Management Module:
 - Test expense recording and categorization.
 - Verify expense report generation and analysis.

2. Integration Testing

- User Authentication and Profile Management:
 - Test the interaction between login and profile access.
 - Verify password reset functionality with profile updates.
- Room Management and Fee Management:
 - Test room allocation and fee payment integration.
 - Verify fee calculation based on room type and duration.
- Notice Management and User Profiles:
 - Test notice delivery to user profiles.
 - Verify personalized notifications based on user preferences.
- Leave Management and Profile Management:
 - Test leave application impact on room occupancy.

3. System Testing

- User Registration and Login:
 - Test the entire registration and login process.
 - Verify email verification and password recovery.
- Room Allocation and Fee Payment:

- Test the complete process from room selection to fee payment.
 - Verify room availability checks and payment confirmations.
- Notice and Leave Management:
 - Test notice posting, viewing, and leave application submission.
- Expense Tracking and Reporting:
 - Test expense recording, categorization, and report generation.
 - Verify accuracy and completeness of expense reports.
- Overall System Performance:
 - Test system response time, load handling, and error recovery.
 - Verify system stability under heavy usage.

7.2 TESTING TOOLS

- Jest: A widely-used JavaScript testing framework that enables easy unit testing with features like snapshot testing and mocking. It helps ensure that individual components perform as expected and provides fast feedback during development.
- Postman: An API development tool that allows for manual and automated testing of APIs. It is used to test the endpoints of the application, ensuring that data is correctly sent and received between the client and server.

7.3 TEST CASES AND RESULTS

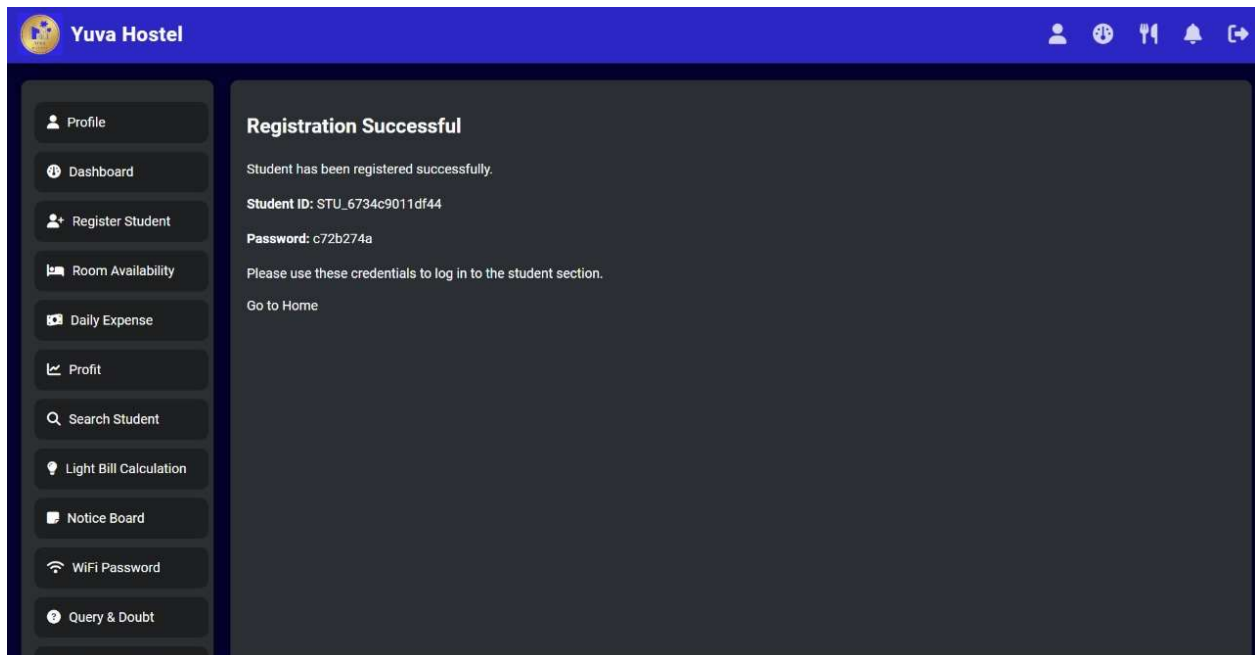


Fig 7.1 student registration test

The screenshot shows a web browser window with the URL `localhost/HMS/Student_Sec/leave_application.html?success=1`. The page has an orange header with the logo and name 'Yuva Hostel'. A notification box at the top center says 'localhost says: Leave application submitted successfully!' with an 'OK' button. On the left is a dark sidebar menu with options: Profile, Dashboard, Notice Board, Edit Password, Leave Application (highlighted), Food Menu, Fees Detail, Pay Fees, Review & Rating, and Query section. The main content area has a dark background with the title 'Apply for Leave Application' in orange. The form contains the following fields:

- Student name:
- ID number:
- Start Date:
- End Date:
- Type of Leave:
- Reason for Leave:

At the bottom of the form are two orange buttons: 'Submit Leave Application' and 'Reset'.

Fig 7.2 leave application test

The screenshot shows a web browser window with the URL `localhost/HMS/Student_Sec/manegment/leave.php`. A notification box at the top center says 'localhost says: Leave application has been Approved.' with an 'OK' button. The background of the page is a solid dark blue.

Fig 7.3 leave application accept test

localhost says
Bill details saved successfully!

Yuva Hostel

Room No.: 220

Unit Rate: 10

Units Used: 125

Number of Persons: 3

Calculate

Bill Details

Room No: 220

Total Bill: ₹1250.00

Per Person Bill: ₹416.67

Confirm

Fig 7.4 bill generation test

Yuva Hostel

Notice Board

Notice: tomorrow there is power cut

Date: 13-11-2024

Submit Notice

Search by Date: dd-mm-yyyy

Please fill out this field.

Search Notice

Notice saved successfully!

Fig 7.5 noticeboard test

CHAPTER 8: RESULTS

8.1 SCREENSHOTS OF THE FINAL PRODUCT

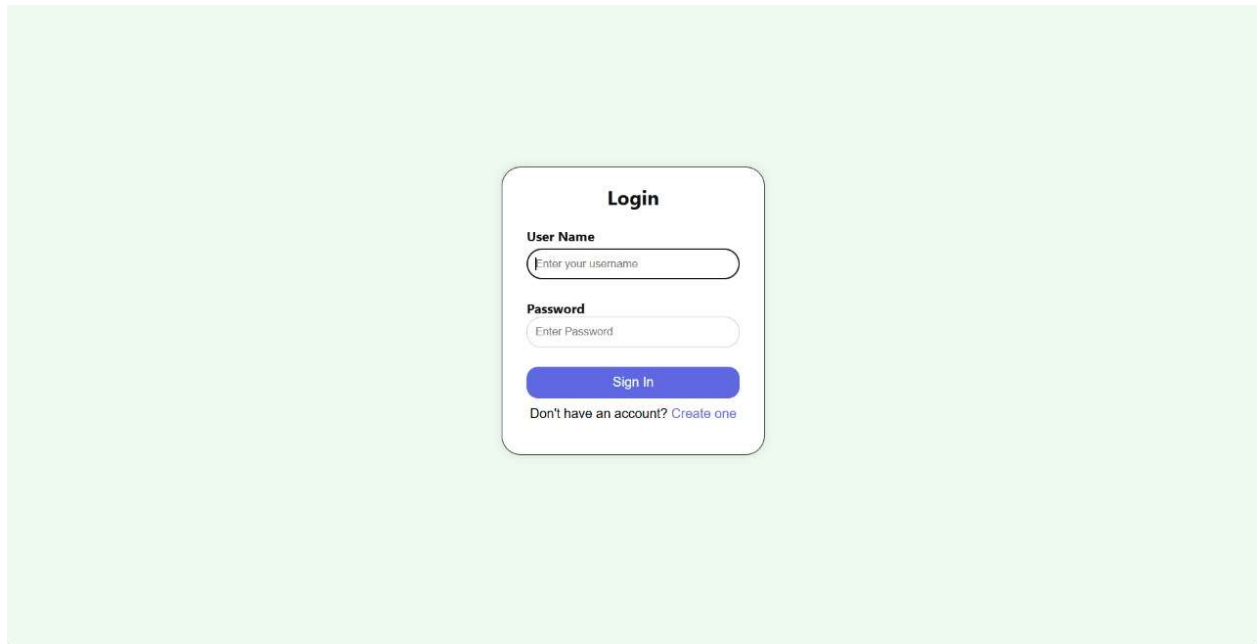


Fig 8.1 Login page

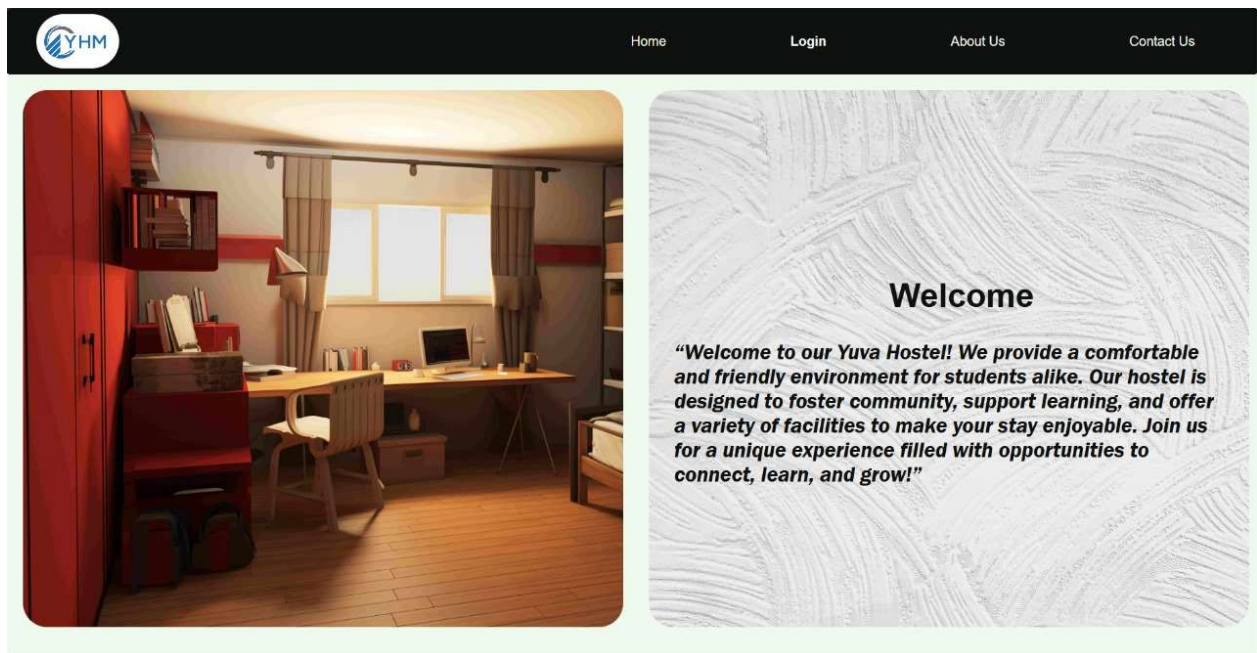


Fig 8.2 welcome page

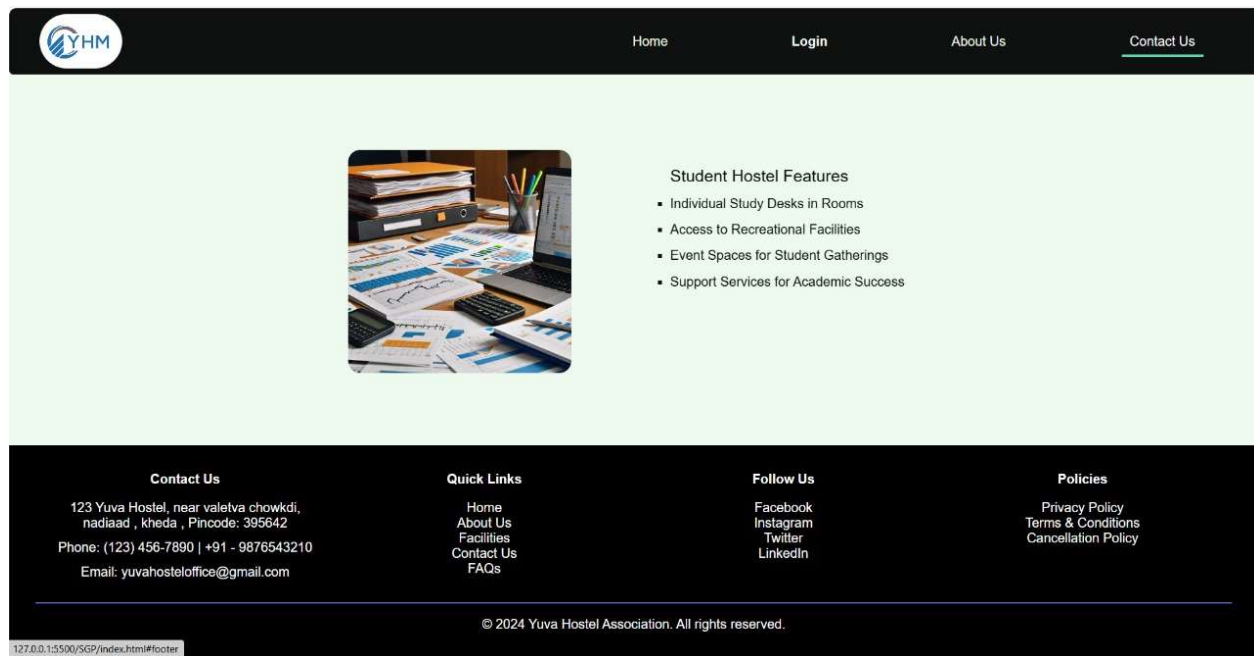


Fig 8.3 contactUs page

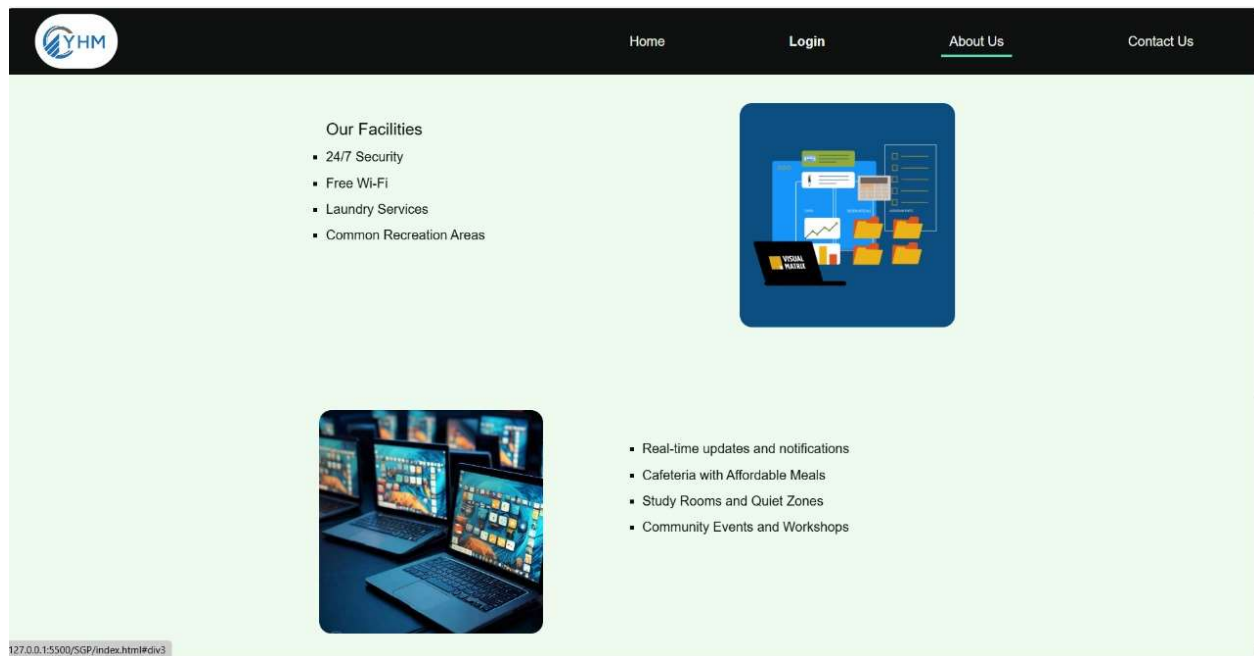


Fig 8.4 About Us page

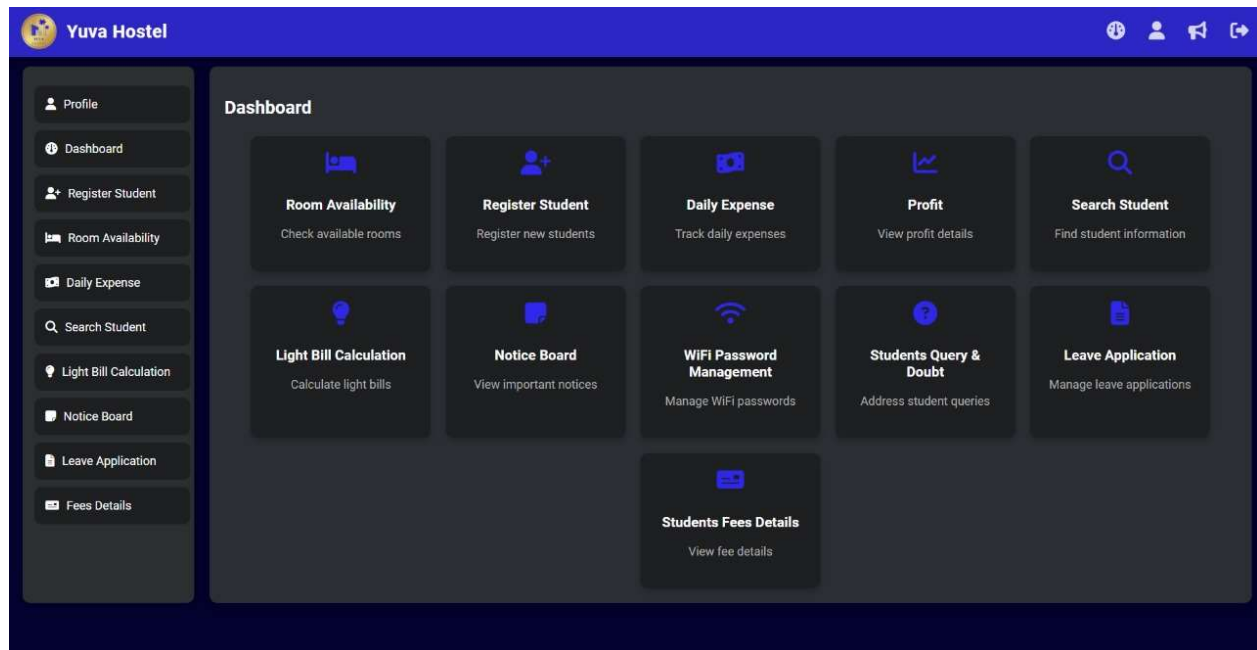


Fig 8.5 Dashboard of admin page

The screenshot displays the 'Register Student' form within the Yuva Hostel system. The header and sidebar are identical to the dashboard. The main content area is titled 'Register Student' and contains the following fields: Photo (with a 'Choose File' button and a file path), Name (filled with 'Dhirumil thakkar'), Father's Name (filled with 'ravibhai'), Mother's Name (filled with 'ashaben'), Date of Birth (filled with '03-02-2006' and a calendar icon), Blood Group (filled with 'a+'), and Caste (filled with 'patel').

Fig 8.6 Registration of student page

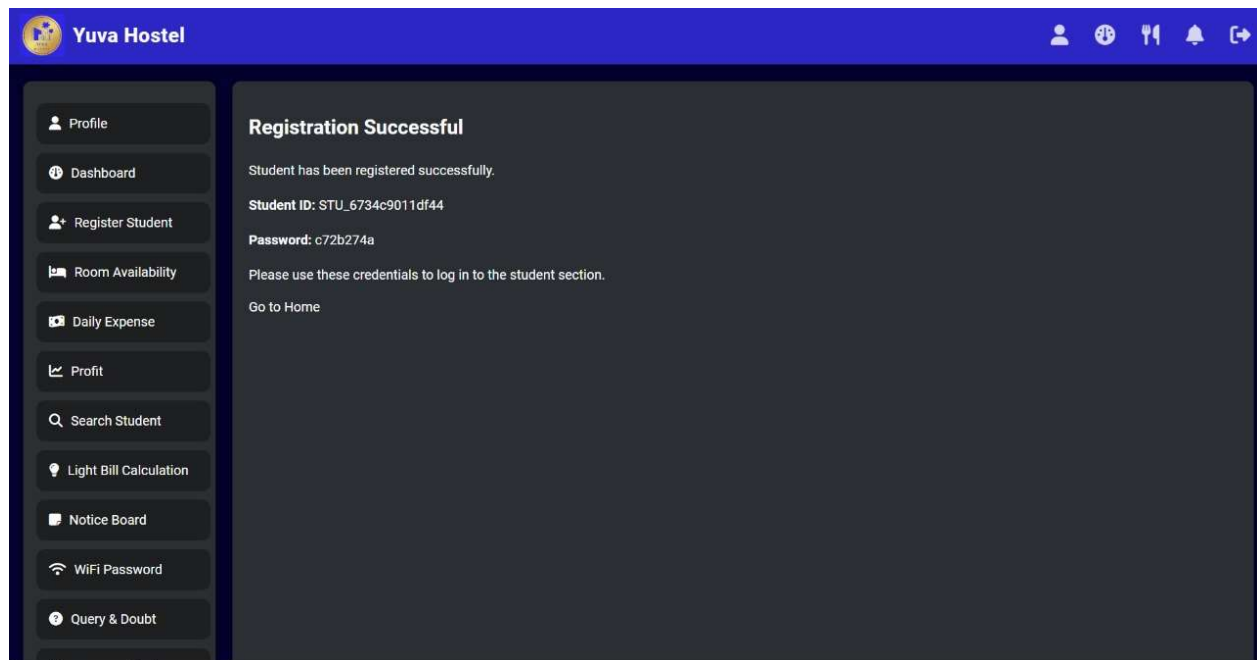


Fig 8.7 Registration successfully page

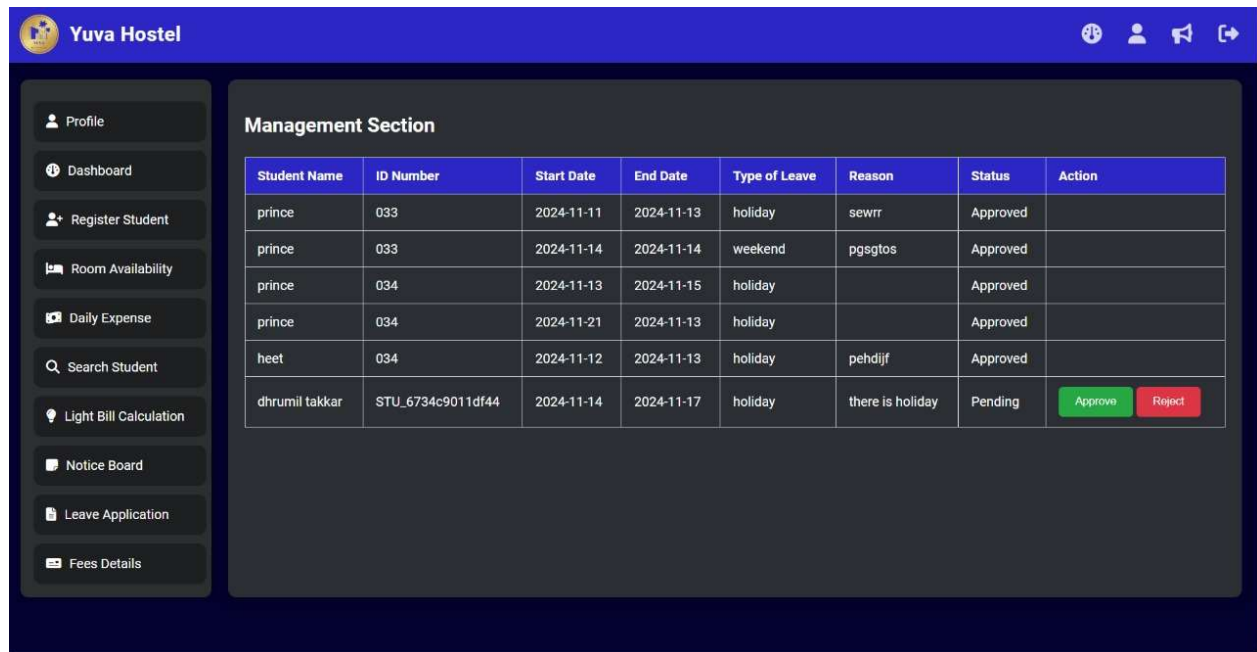


Fig 8.8 Leave management page

Yuva Hostel

Profile

Dashboard

Register Student

Room Availability

Daily Expense

Search Student

Light Bill Calculation

Notice Board

Leave Application

Fees Details

Search Student

dhrumil

Search

Fig 8.9 Search student page

Yuva Hostel

Dashboard

Register Student

Room Availability

Daily Expense

Search Student

Light Bill Calculation

Notice Board

Leave Application

Fees Details

Room No:

220

Unit Rate:

10

Units Used:

125

Number of Persons:

3

Calculate

Bill Details

Room No: 220

Total Bill: ₹1250.00

Per Person Bill: ₹416.67

Confirm

Fig 8.10 Lightbill generator page

Yuva Hostel

Room Summary

Total Rooms: 150 Occupied Rooms: 43 Partially Occupied Rooms: 50 Empty Rooms: 57

Search: Enter Room Number

Room Availability

Room 101 Available	Room 102 Occupied	Room 103 Partially Occupied	Room 104 Occupied	Room 105 Partially Occupied	Room 106 Partially Occupied
Room 107 Occupied	Room 108 Partially Occupied	Room 109 Occupied	Room 110 Available	Room 111 Occupied	Room 112 Available

Navigation Menu:

- Profile
- Dashboard
- Register Student
- Room Availability
- Daily Expense
- Search Student
- Light Bill Calculation
- Notice Board
- Leave Application
- Fees Details

Fig 8.11 Room allocation page

Yuva Hostel

Notice Board

Notice:

Date:

Search by Date:

Please fill out this field.

Notice saved successfully!

Navigation Menu:

- Profile
- Dashboard
- Register Student
- Room Availability
- Daily Expense
- Search Student
- Light Bill Calculation
- Notice Board
- Leave Application
- Fees Details

Fig 8.12 Noticeboard page

Yuva Hostel

Fees Report

Student Name	Student ID	Amount Paid	Payment Date	Remaining Amount
prince	123	132.00	2024-11-12	999868
utsav	gdktg	35000.00	2024-11-12	965000
heet	45	35000.00	2024-11-12	965000
prince	123	132.00	2024-11-13	999868
utsav	23	789.00	2024-11-12	999211
dhrumil	STU_6734c9011df44	350000	2024-11-13	650000

Pay Fees

Student Name:

Student ID:

Amount:

Fig 8.13 Fees report page

Yuva Hostel

Hostel Daily Expense

Enter Expense

Date:

Description:

Amount:

Add Expense

Expense Summary

Daily Expense: 0.00
 Weekly Expense: 500.00
 Previous Week Expense: 0.00
 Yearly Expense: 500.00

Fig 8.14 Daily expense page

The screenshot shows the phpMyAdmin interface with the 'students' table selected. The table structure is as follows:

student_id	password	photo	name	father_name	mother_name	dob
STU_67012e1716ce9_c028d57f		23DCS033_HACKERRANK.jpg	GHEVARIYA PRINCE	Iti	fesae	2024
STU_6702b46caaf12_4d01fe86		23DCS033_HACKERRANK.jpg	GHEVARIYA PRINCE	Iti	fesae	2005
STU_67034b321e7d1_52y\$10\$XpGQ/oe5r989RWjx1MupEB4YNpU8kiosGPPwScN...		Screenshot 2024-10-05 194112.png	GHEVARIYA PRINCE	Iti	fesae	2024
STU_6703b095c8e5e_52y\$10\$G0NhtSDbgSyTS/XbZksSTfgvtDly2DfsHyZLm5Jf8...		Screenshot 2023-11-12 153733.png	GHEVARIYA PRINCE	Iti	fesae	2005
STU_67318a48ab657_52y\$10\$zHy35bG8wPNM7mIRJJoF:TAkOxEdVZgnAzr5CmUf...		WhatsApp Image 2024-08-26 at 09:35:34_ab462d63.jpg	GHEVARIYA PRINCE	Iti	fesae	2005
STU_67319f1c0d913_52y\$10\$P1Ztg19m8H9YaF9WvckauALzIWWK7ogcq7OOfqZ14r...		logor.png	utsav babariya	nileshbhai	xyz	2005
STU_67332468dee7d_52y\$10\$79SRQrD4cHglSE0qMYOI1ICG3c4A6omBB2FRROZ...		WhatsApp Image 2024-08-26 at 09:35:34_ab462d63.jpg	Dineshbhai Ghevariya	reni gogo	heuruei	2024
STU_6734c9011df44_52y\$10\$KPAD7G8vJ8lVKWj8d34uUptNjHK2TbssoyAz8ON...		WhatsApp Image 2024-08-26 at 09:35:34_ab462d63.jpg	Dhruvil thakkar	ravibhai	ashaben	2006

Fig 8.15 database table

The screenshot shows the phpMyAdmin interface with the 'fees' table selected. The table structure is as follows:

id	student_name	student_id	amount_paid	payment_date
3	prince	123	132.00	2024-11-12
4	utsav	gdxkg	35000.00	2024-11-12
5	heet	45	35000.00	2024-11-12
6	prince	123	132.00	2024-11-13
7	utsav	23	789.00	2024-11-12
8	dhruvil	STU_6734c9011df44	350000.00	2024-11-13

Fig 8.16 database table

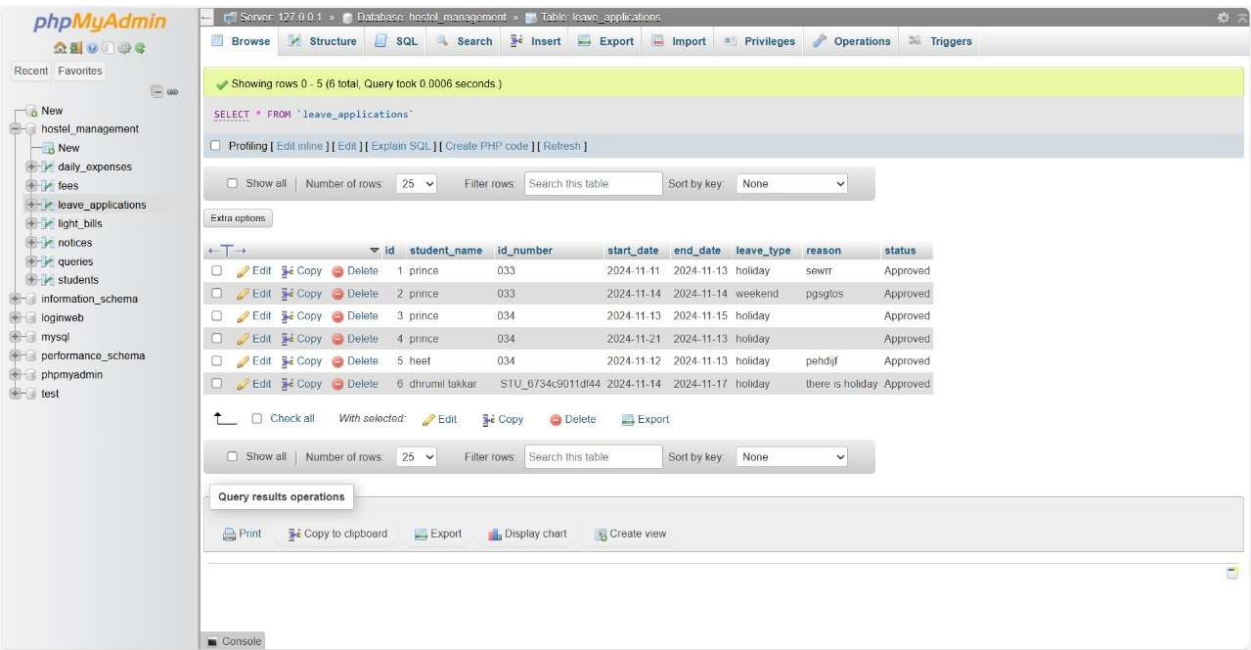


Fig 8.17 database table

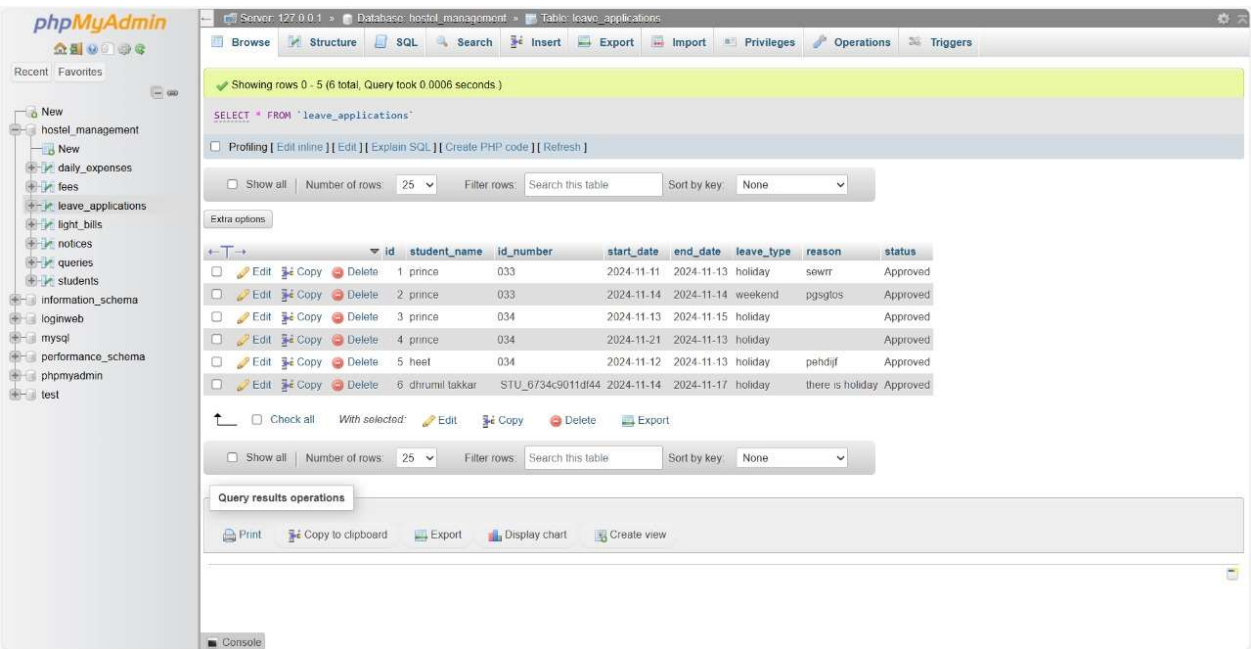


Fig 8.18 database table

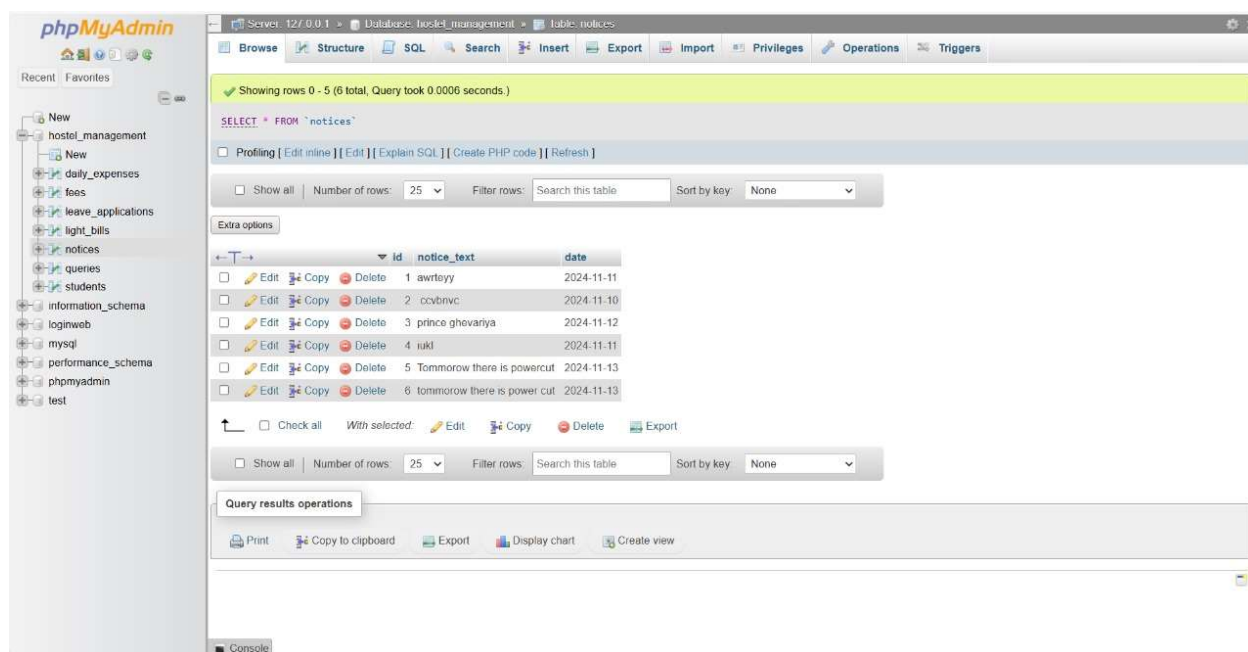


Fig 8.19 database table

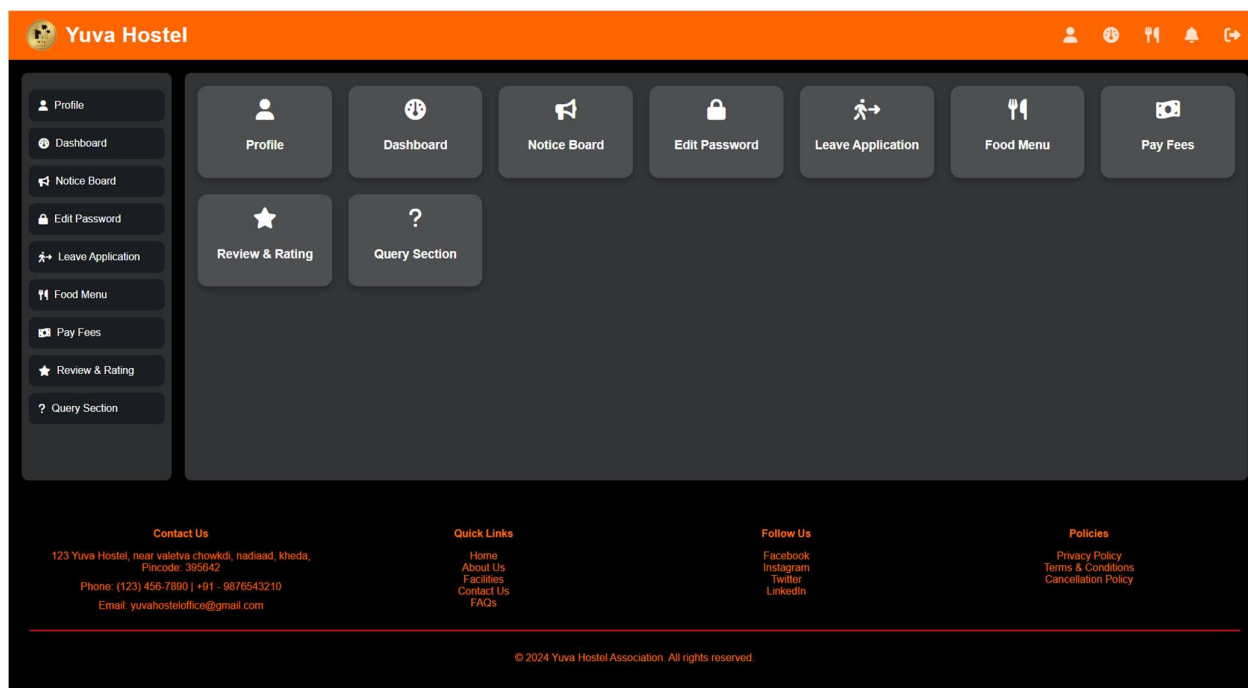


Fig 8.20 Student dashboard page

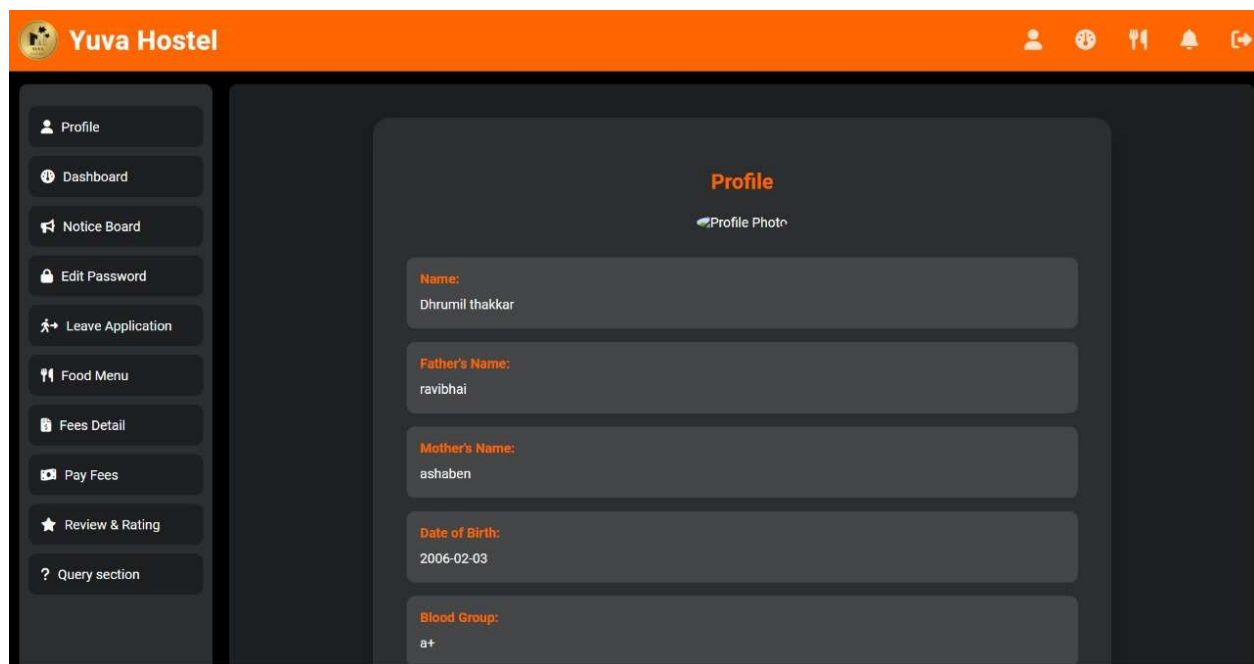


Fig 8.21 Student profile page

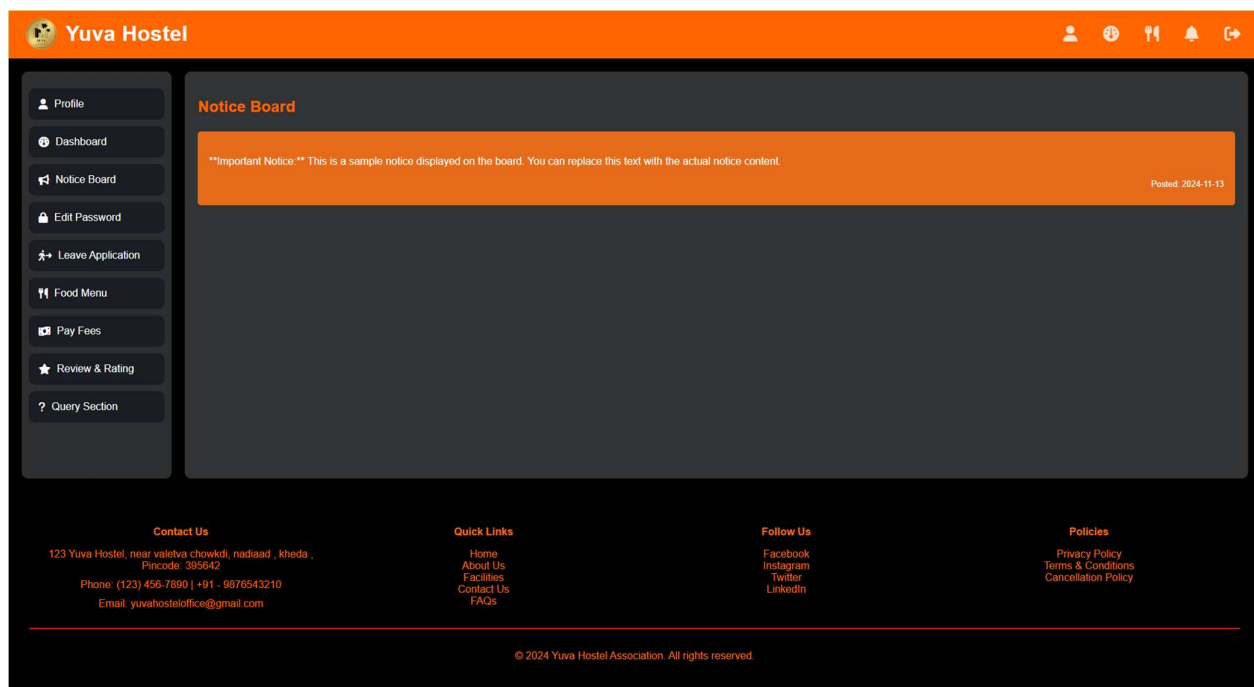


Fig 8.22 noticeboard page

Yuva Hostel

Edit Password

Current Password

New Password

Confirm New Password

Request to update your password

Contact Us
123 Yuva Hostel, near vashva chowkdi, nadiaad , kheda ,
Pincode: 395642
Phone: (123) 456-7890 | +91 - 9876543210
Email: yuvahostelloffice@gmail.com

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Fig 8.23 edit password page

Yuva Hostel

Apply for Leave Application

Student name: ID number:

Start Date: End Date:

Type of Leave:

Reason for Leave:

Upload document of Doctor Prescription:
 No file chosen

Submit Leave Application Reset

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Pincode: 395642
Phone: (123) 456-7890 | +91 - 9876543210

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Fig 8.24 leave application page

Yuva Hostel

Hostel Weekly Food Menu

Day	Breakfast	Lunch	Dinner
Monday	Thepla, Chai	Gujarati Thali (Roti, Dal, Rice, Sabzi)	Kadhi, Khichdi, Papad
Tuesday	Poha, Sev	Puri, Chole, Salad	Undhiyu, Bhakni
Wednesday	Dhokla, Green Chutney	Kadhi, Rice, Mixed Sabzi	Handvo, Chutney
Thursday	Muthiya, Curd	Dal Dhokli, Salad	Baingan Bharta, Bajra Roti
Friday	Upma, Chutney	Sev Tameta, Rice	Pav Bhaji, Salad
Saturday	Khaman, Green Chutney	Paneer Sabzi, Roti, Rice	Dhokli, Kadi
Sunday	Idli, Sambar	Masala Dosa, Chutney	Surti Locho, Salad

Contact Us
123 Yuva Hostel, near valetva chowkdi, nadiad, kheda, Pincode: 395042
Phone: (123) 456-7890 | +91 - 9876543210
Email: yuvahosteloffice@gmail.com

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Fig 8.25 food menu page

Yuva Hostel

Category	Amount
Hostel Fees	₹65000
Mess Fees	₹35000
Light Bill	₹10000
Total Fees	₹110000

Pay Fees

Select Fees:
Hostel Fees

Enter Amount:
100

Payment Method:
Credit Card

Payment Date:
13-11-2024

Payment Status:
Paid

QR code for payment:

Fig 8.26 pay fees page

Yuva Hostel

Review and Rating

Student Name: 0000000000

Student ID: 0000000000000000 Date: 13-11-2024

Rate the Following Facilities (Out of 5 stars):

No.	Facility	Rating
1	Cleanliness	1 2 3 4 5
2	Room Comfort	1 2 3 4 5
3	Food Quality	1 2 3 4 5
4	Security	1 2 3 4 5
5	Internet Connectivity	1 2 3 4 5

Would you like to provide a suggestion? ☒

Your suggestion...

Submit Query Clear

Fig 8.27 Review and rating page

Yuva Hostel

Query section

Student Name: EEEEE

Student ID: 000000000000 Date: 13-11-2024

Facility: ☒ Image ☒ Text ☒ Recording

Upload Image: Choose File No file chosen

Enter Text:

Upload Recording: Choose File No file chosen

Submit Query Clear

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Fig 8.28 Query section page

8.2 FUNCTIONALLY EXPLAINATION

- **User Authentication** ensures secure access to the system through a robust login and registration process. Strong password hashing techniques safeguard user credentials, while session management maintains user sessions for seamless navigation.
- **Profile Management** allows users to view and update their personal information, including contact details and profile pictures.

- **Room Management** facilitates efficient room allocation and deallocation. Administrators can easily check room availability and assign rooms to students.
- **Fee Management** enables users to view their fee details and, in future implementations, make online payments. This module streamlines the fee collection process and provides transparency to users.
- **Notice Management** keeps users informed about important announcements and updates. Administrators can post notices, and users can easily access and view them.
- **Leave Management** simplifies the leave application and approval process. Students can submit leave requests and track their status, while administrators can review and approve or reject them.
- **The Dashboard** provides a centralized overview of the system, with quick links to various modules. Its responsive design ensures optimal user experience across different devices, including smartphones and tablets.

CHAPTER 9: CHALLENGES FACED

9.1 DEVELOPMENT CHALLENGES

- **Cross-Browser Compatibility:** Ensuring that the application functioned consistently across various browsers (e.g., Chrome, Firefox, Safari, Edge) presented another challenge. Different browsers often interpret HTML, CSS, and JavaScript differently, which can lead to discrepancies in user experience and functionality.
- handling file uploads securely and efficiently.
- Ensuring all user inputs are validated to prevent invalid data from being stored in the database.
- Designing a comprehensive database schema that accurately represents all entities and their relationships.

9.2 SOLUTION AND WORKAROUNDS

- **Conducted Thorough Testing Across Different Browsers:** To address cross-browser compatibility issues, we implemented a comprehensive testing strategy. This involved using tools like BrowserStack to test the application across multiple browsers and devices. Any inconsistencies were addressed through targeted adjustments in the code, ensuring a uniform experience for all users.
- Implemented file upload functionality with proper validation and sanitization to prevent security vulnerabilities.
- Implemented server-side validation for all forms and used HTML5 input types for basic client-side validation.
- Created an ER diagram to visualize the relationships and ensure all entities were correctly represented. Used SQL to define the schema and ensure referential integrity.

CHAPTER 10 : CONCLUSION AND FUTURE SCOPE

10.1 SUMMARY OF THE PROJECT ACHIEVEMENTS

- **Comprehensive System:** Developed a comprehensive Hostel Management System with modules for user authentication, profile management, room management, fee management, notice management and leave management.
- **Secure Authentication:** Implemented secure user authentication and session management.
- **Responsive Design:** Ensured the application is responsive and works well on different devices.
- **Data Validation:** Implemented robust data validation to ensure data integrity.
- **User-Friendly Interface:** Designed a user-friendly interface with clear navigation and intuitive forms.

10.2 FUTURE FEATURES

- **Role-Based Access Control:** Implement role-based access control to provide different levels of access to different user roles (e.g., admin, student).
- **Notification System:** Implement a notification system to alert users of important events (e.g., fee due dates, new notices).
- **Analytics Dashboard:** Develop an analytics dashboard to provide insights into hostel operations (e.g., occupancy rates, fee collection).
- **Mobile App:** Develop a mobile app to provide users with easy access to the system on their smartphones.
- **Integration with Payment Gateways:** Integrate with payment gateways to facilitate online fee payments.

REFERENCES

- PHP Documentation: <https://www.php.net/docs.php>
- MySQL Documentation: <https://dev.mysql.com/doc/>
- Font Awesome: <https://fontawesome.com/>
- W3Schools: <https://www.w3schools.com/>
- MDN Web Docs: <https://developer.mozilla.org/>
- PHP: <https://www.phpmyadmin.net/>
- XAMPP: <https://www.apachefriends.org/download.html>