



USER MANUAL

# HOSTEL MANAGEMENT SYSTEM

**Batch: CS01, Group-3**

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**INTRODUCTION**

The Hostel Management System is a web-based solution designed to simplify and automate hostel operations, including student registration, room allocation, fee management, and more. This manual provides step-by-step guidance on using the system efficiently.

**Prerequisites**

Before installation, ensure that the following software is installed:

- **Python (3.x recommended)** – [Download Here](#)
- **Flask** – Web framework for Python
- **MySQL Server** – [Download MySQL](#)
- **VS Code (Visual Studio Code)** – [Download VS Code](#)
- **VS Code Extensions:**
  - **Python Extension** (for Flask development)
  - **MySQL Extension** (to execute SQL queries in VS Code)

**Installation Steps****Step 1: Install Python and Required Libraries**

1. Open a terminal and install the required packages:

```
``sh
    pip install flask mysql-connector-python
``
```

## Step 2: Set Up MySQL Database

1. Open **MySQL Workbench** or use **VS Code MySQL extension**.

2. Create a new database:

```
```sql
    CREATE DATABASE hostel_management;
```
```

3. Select the database:

```
```sql
    USE hostel_management;
```
```

## Step 3: Configure VS Code for MySQL

1. Install the **MySQL extension** in VS Code.
2. Click "**Add New Connection**" and enter:
  - a. **Hostname:** localhost
  - b. **Username:** root
  - c. **Password:** your\_password
  - d. **Database:** hostel\_management

## Step 4: Configure Flask Backend

1. Open `config.py` and update MySQL credentials:

```
```python
    DB_HOST = "localhost"
    DB_USER = "root"
    DB_PASSWORD = "your_password"
    DB_NAME = "hostel_management"
```
```

2. Run the Flask server:

```
```sh
    python app.py
```
```

## Step 5: Open the Web Application

1. Open a browser and go to:

<http://127.0.0.1:5000>

2. The homepage should load successfully.

## User Roles and Permissions

- **Admin:** Full access to all modules
- **Student:** Views assigned room and fee status

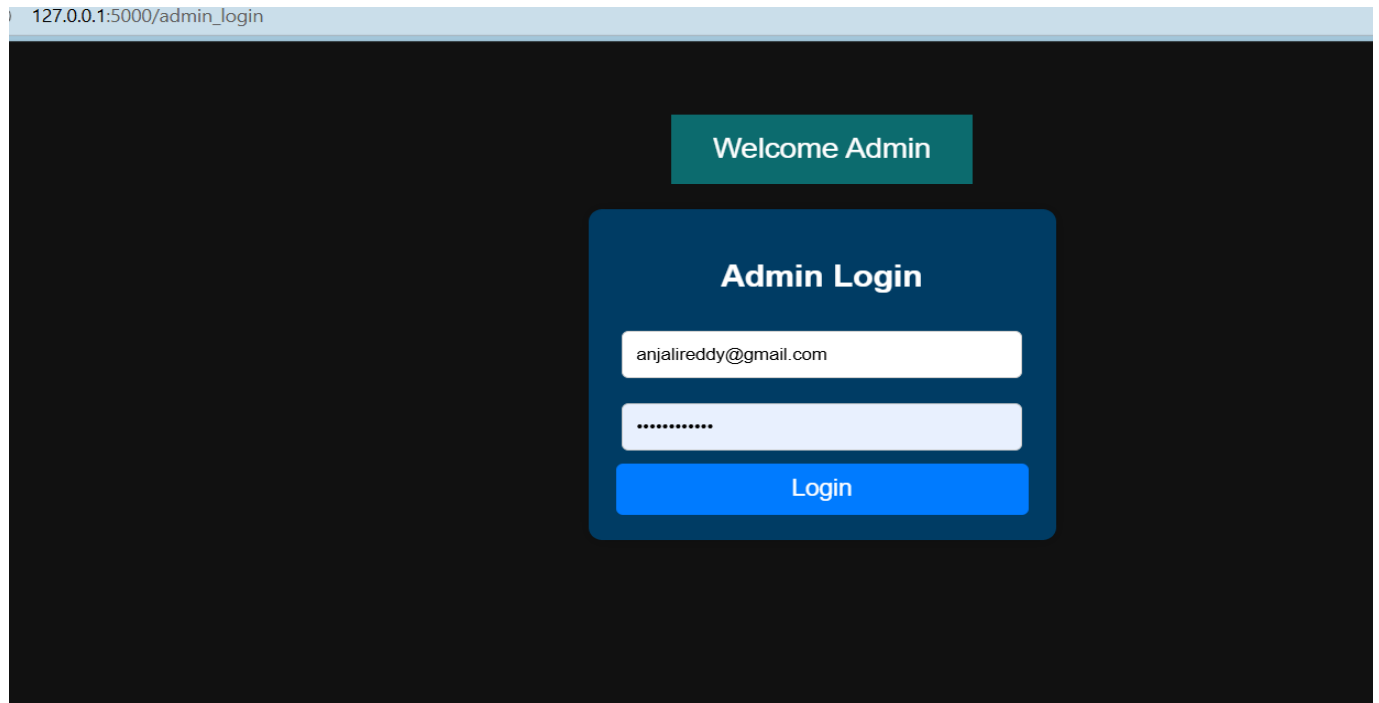
## Features Overview

- **Dashboard:** Contains two dashboards each for the student and staff (Admin)
- **Admin Dashboard:** A dashboard for the admin to view and manage several functions
- **Student Dashboard:** A dashboard for the student to access several functions

## Step-by-Step Guide

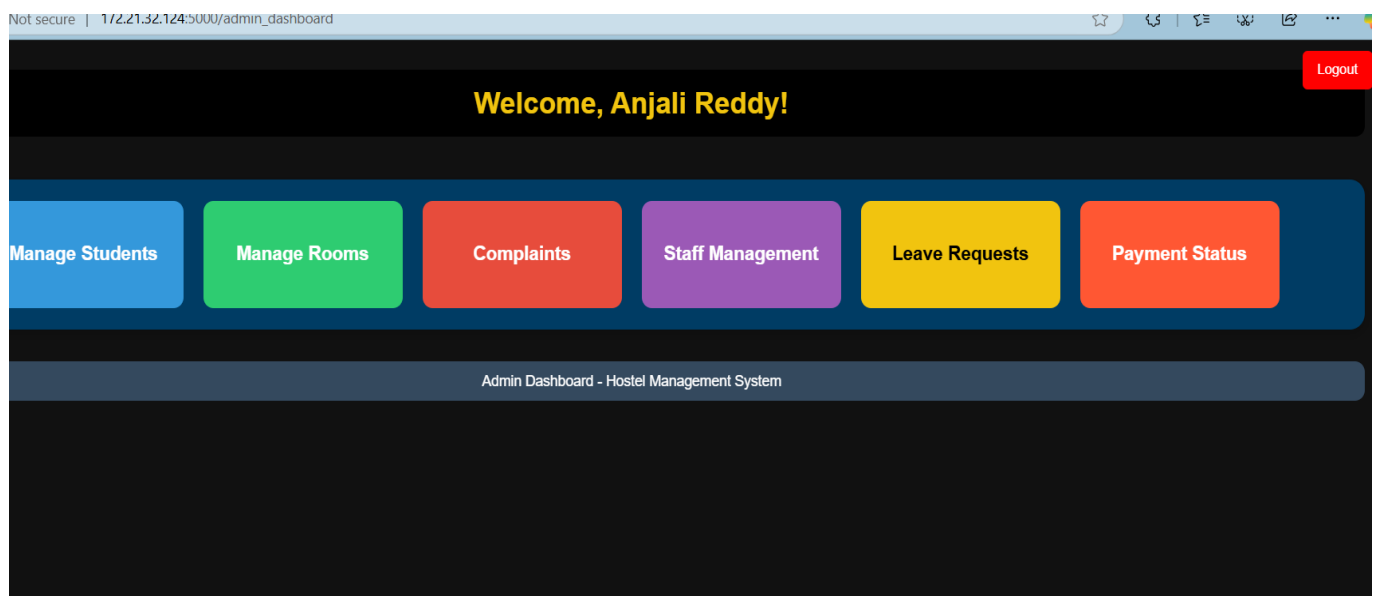
### Admin Login:

1. Visit the **HMS Login Page**.
2. Enter your **Username** and **Password** provided by the hostel administration.
3. Click on **Login** to access admin dashboard.



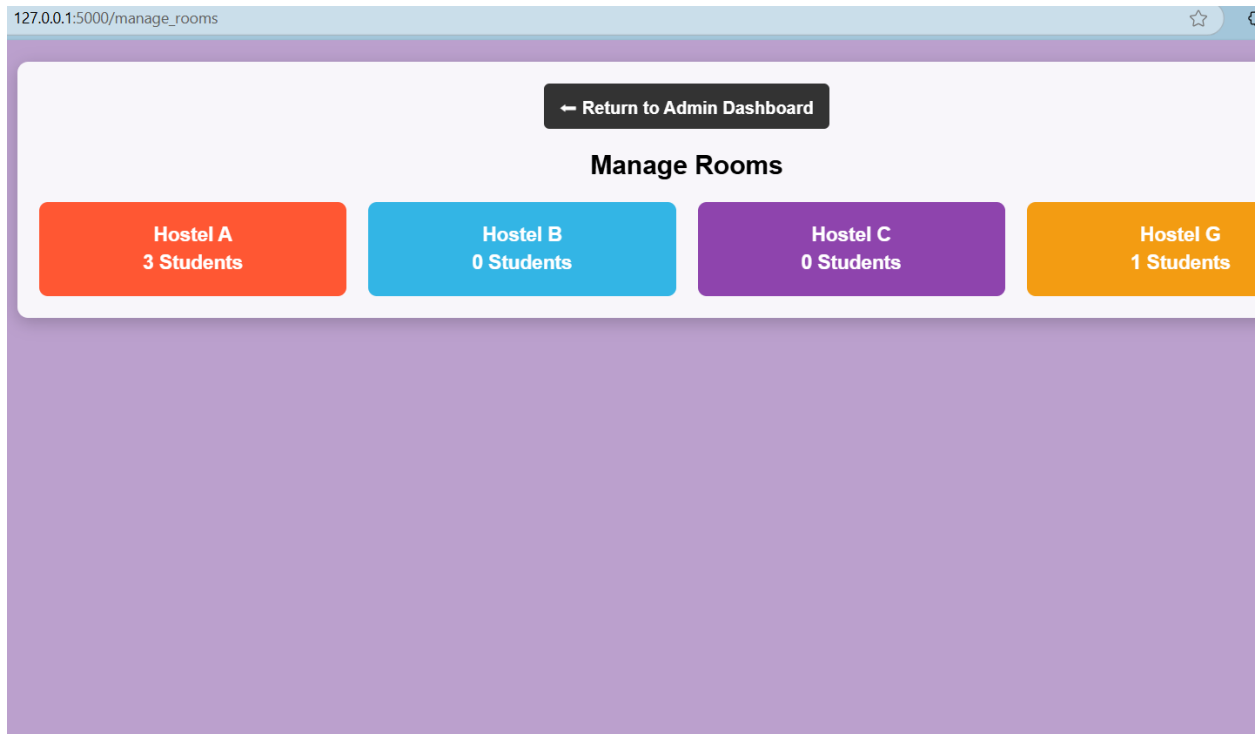
## Admin Dashboard:

Admin can login with admin credentials and has access to below functions.



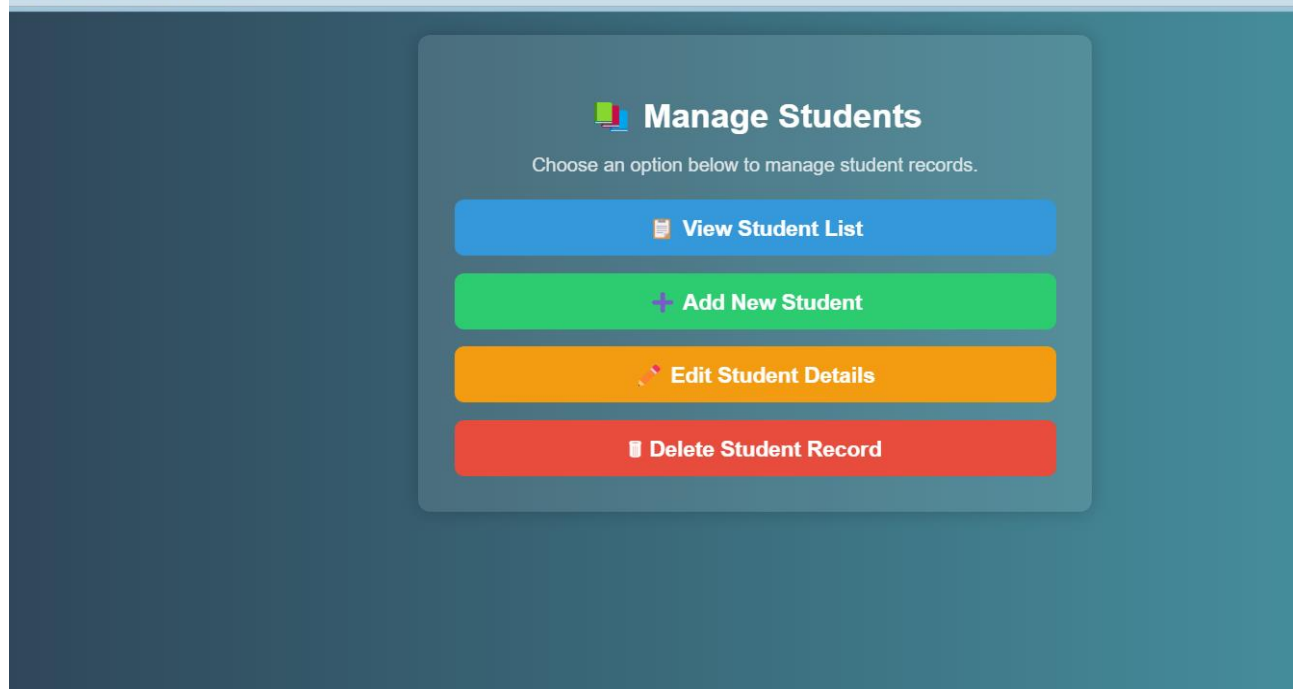
### 1. Room Management

1. View hostel and room details
2. List of students in available rooms and hostels



## 2. Student Management

1. View students with required details
2. Register new student
3. Remove student details



127.0.0.1:5000/view\_students

Dashboard

## Student List

Search by Name or ID

| ID      | Name           | Date of Birth | Contact       | Email                   | Gender | Room | First Login Time    |
|---------|----------------|---------------|---------------|-------------------------|--------|------|---------------------|
| B25100  | Vikram Reddy   | 2004-07-02    | +916326833240 | vikramreddy41@hms.com   | M      | A1   | 2025-03-24 18:50:32 |
| B251000 | K KOTI REDDY   | 2005-07-26    | 8374400562    | kotireddy2607@hms.com   | M      | A1   | 2025-03-28 10:55:21 |
| B25101  | Priya Sharma   | 2004-02-25    | +917204390366 | priyasharma45@hms.com   | F      | G1   | 2025-03-24 18:54:10 |
| B25102  | Karthik Pillai | 2005-08-13    | +918577245019 | karthikpillai38@hms.com | M      | A10  | 2025-03-30 17:11:19 |
| B25103  | Anjali Verma   | 2007-05-25    | +917880703390 | anjaliiverma60@hms.com  | F      | G1   | 2025-03-30 19:15:40 |
| B25104  | Divya Verma    | 2007-07-13    | +919086198033 | divyaverma25@hms.com    | F      | G10  | 2025-03-31 20:42:49 |
| B25105  | Rohit Iyer     | 2004-08-06    | +919732340193 | rohitier95@hms.com      | M      | None | None                |
| B25106  | Karthik Verma  | 2005-03-13    | +918153195462 | karthikverma30@hms.com  | M      | None | None                |
| B25107  | Meena Nair     | 2006-04-13    | +919990419226 | meenair20@hms.com       | F      | None | None                |
| B25108  | Ramesh Verma   | 2006-07-26    | +919229289263 | rameshverma39@hms.com   | M      | None | None                |
| B25109  | Rahul Ghosh    | 2006-06-15    | +917497603962 | rahulghosh38@hms.com    | M      | None | None                |
| B25110  | Pooja Ghosh    | 2004-07-11    | +919353067067 | poojaghosh87@hms.com    | F      | None | None                |
| B25111  | Vikram Iyer    | 2005-09-21    | +919282164526 | vikramier10@hms.com     | M      | None | None                |
| B25112  | Anjali Joshi   | 2004-05-23    | +916399068597 | anjaliyoshi14@hms.com   | F      | None | None                |

### 3. Staff Management

1. View staff with required details
2. Register new staff
3. Remove staff details

127.0.0.1:5000/staff\_management



## Manage Staff

Choose an option below to manage staff records.

View Staff List

Add New Staff

Edit Staff Details

Delete Staff Record



127.0.0.1:5000/view\_staff

[Return to Dashboard](#)

## Staff List

Search by Name or ID

| ID      | Name         | Email                 | Contact       | Hostel Name | Position   | Gender |
|---------|--------------|-----------------------|---------------|-------------|------------|--------|
| S251094 | Suresh Verma | sureshverma@gmail.com | +917606815703 | G           | technician | F      |
| S251153 | Amit Mehta   | amitmehta@gmail.com   | +919325222343 | G           | cleaner    | F      |
| S251545 | Anjali Reddy | anjalireddy@gmail.com | +916015700823 | G           | admin      | F      |
| S251727 | Anjali Gupta | anjaligupta@gmail.com | +919797140964 | B           | cleaner    | M      |
| S252118 | Amit Menon   | amitmenon1@gmail.com  | +917400345651 | B           | technician | M      |
| S252398 | Amit Nair    | amitnair@gmail.com    | +918288507949 | G           | admin      | F      |
| S252409 | Neha Verma   | nehaverma@gmail.com   | +919740995314 | A           | cleaner    | M      |
| S252503 | Amit Verma   | amitverma1@gmail.com  | +918943353502 | B           | technician | M      |
| S252969 | Priya Menon  | priyamenon@gmail.com  | +918170369213 | C           | admin      | M      |
| S253569 | Rohit Das    | rohitdas@gmail.com    | +917545424554 | C           | cleaner    | M      |
| S254169 | Amit Menons  | amitmenon@gmail.com   | +918420564241 | C           | technician | M      |
| S254305 | Rohit Menon  | rohitmenon@gmail.com  | +918730716650 | C           | admin      | M      |
| S254323 | Rohit Nair   | rohitnair@gmail.com   | +919439925966 | A           | admin      | M      |

#### 4. Maintenance Requests

1. View student complaints
2. Edit status of complaints (In Progress / Rejected / Completed)

## Maintenance Requests

Filter by Status: All

| Select                   | Request ID | Student ID | Room Number | Request Date        | Description  | Status      |
|--------------------------|------------|------------|-------------|---------------------|--|-------------|
| <input type="checkbox"/> | 1          | B25100     | A1          | 2025-03-31 16:32:54 | wifi issue   | Rejected    |
| <input type="checkbox"/> | 2          | B25100     | A1          | 2025-03-31 17:52:16 | help no light in room  | Completed   |
| <input type="checkbox"/> | 3          | B25200     | G1          | 2025-03-31 17:55:38 | I have water problem in my floor sir. please resolve asap.   | Rejected    |
| <input type="checkbox"/> | 4          | B25101     | G1          | 2025-03-31 17:57:05 | leaking roof in room   | Completed   |
| <input type="checkbox"/> | 5          | B25200     | G1          | 2025-03-31 17:57:23 | Hello sir, I request for room cleaning. please do asap       | Completed   |
| <input type="checkbox"/> | 6          | B25102     | None        | 2025-03-31 17:59:48 | Wifi not working, please fix my wifi.                        | Completed   |
| <input type="checkbox"/> | 7          | B25103     | G10         | 2025-03-31 18:03:07 | Door not closing, wind coming, cold. please fix my door.     | Rejected    |
| <input type="checkbox"/> | 8          | B25202     | A1          | 2025-03-31 18:03:57 | hello sir, my friend was disturbing at night time.           | In Progress |
| <input type="checkbox"/> | 9          | B25500     | G10         | 2025-03-31 18:04:11 | this is to inform you snakes are washroom please remove them | In Progress |
| <input type="checkbox"/> | 10         | B25103     | G10         | 2025-03-31 18:04:16 | My window is leaking. Please fix it.                         | Completed   |
| <input type="checkbox"/> | 11         | B25104     | G100        | 2025-03-31 18:06:00 | My table is broken, my freind broke it. Please fix it.       | In Progress |
|                          |            |            |             | 2025-03-31          |  |             |

### 5. Leave Requests

1. View student Leave requests
2. Edit student leave status

## Student Leave List

On Leave: 16

Filter by Status: All

| Select                   | Leave ID | Name           | Contact No    | Student ID | Start Date | Return Date | Description  | Status                  |
|--------------------------|----------|----------------|---------------|------------|------------|-------------|--|-------------------------|
| <input type="checkbox"/> | 1        | Vikram Reddy   | +916326833240 | B25100     | 2025-03-31 | 2025-04-04  | health issue.  | Returned <span>▼</span> |
| <input type="checkbox"/> | 2        | Vikram Reddy   | +916326833240 | B25100     | 2025-03-31 | 2222-02-22  | i am leaving to go home i will be back after 3 weeks                           | On Leave <span>▼</span> |
| <input type="checkbox"/> | 3        | Kavya Mehta    | +916701752044 | B25200     | 2025-03-31 | 2025-04-10  | I was suffering from fever, please give me 10-days leave.                      | On Leave <span>▼</span> |
| <input type="checkbox"/> | 4        | Priya Sharma   | +917204390366 | B25101     | 2025-03-31 | 2222-11-11  | i am going on a trip i will be back today                                      | Returned <span>▼</span> |
| <input type="checkbox"/> | 5        | Kavya Mehta    | +916701752044 | B25200     | 2025-03-31 | 2025-04-04  | Hello sir, I want to home for 3 days, because I have to for brother's wedding. | On Leave <span>▼</span> |
| <input type="checkbox"/> | 6        | Karthik Pillai | +918577245019 | B25102     | 2025-03-31 | 2025-03-29  | My relative is in hospital.  | Returned <span>▼</span> |
| <input type="checkbox"/> | 7        | Anjali Verma   | +917880703390 | B25103     | 2025-03-31 | 2025-04-05  | Please give me leave. My father is sick.                                       | On Leave <span>▼</span> |
| <input type="checkbox"/> | 8        | Anjali Verma   | +917880703390 | B25103     | 2025-03-31 | 2025-04-05  | Please give me leave.  | On Leave <span>▼</span> |
| <input type="checkbox"/> | 9        | Amit Verma     | +919223414729 | B25202     | 2025-03-31 | 2025-04-07  | Hi sir, i have to go home. i have health issue.                                | On Leave <span>▼</span> |
| <input type="checkbox"/> | 10       | Ritu Nair      | +917223165678 | B25500     | 2025-03-31 | 2222-08-03  | i am going to a marrage for 10 days  | On Leave <span>▼</span> |
|                          |          |                |               |            | 2025-03-   | 2025-04-    | My friend hand is broken. Want leave to visit her in                           |                         |

## 6. Viewing Paid Students

Admins can view a list of students who have paid their hostel fees along with their details. Clicking the **"View Paid Students"** button will display relevant student information, including their ID, name, room number, and payment details.

Dashboard



## Payment Status



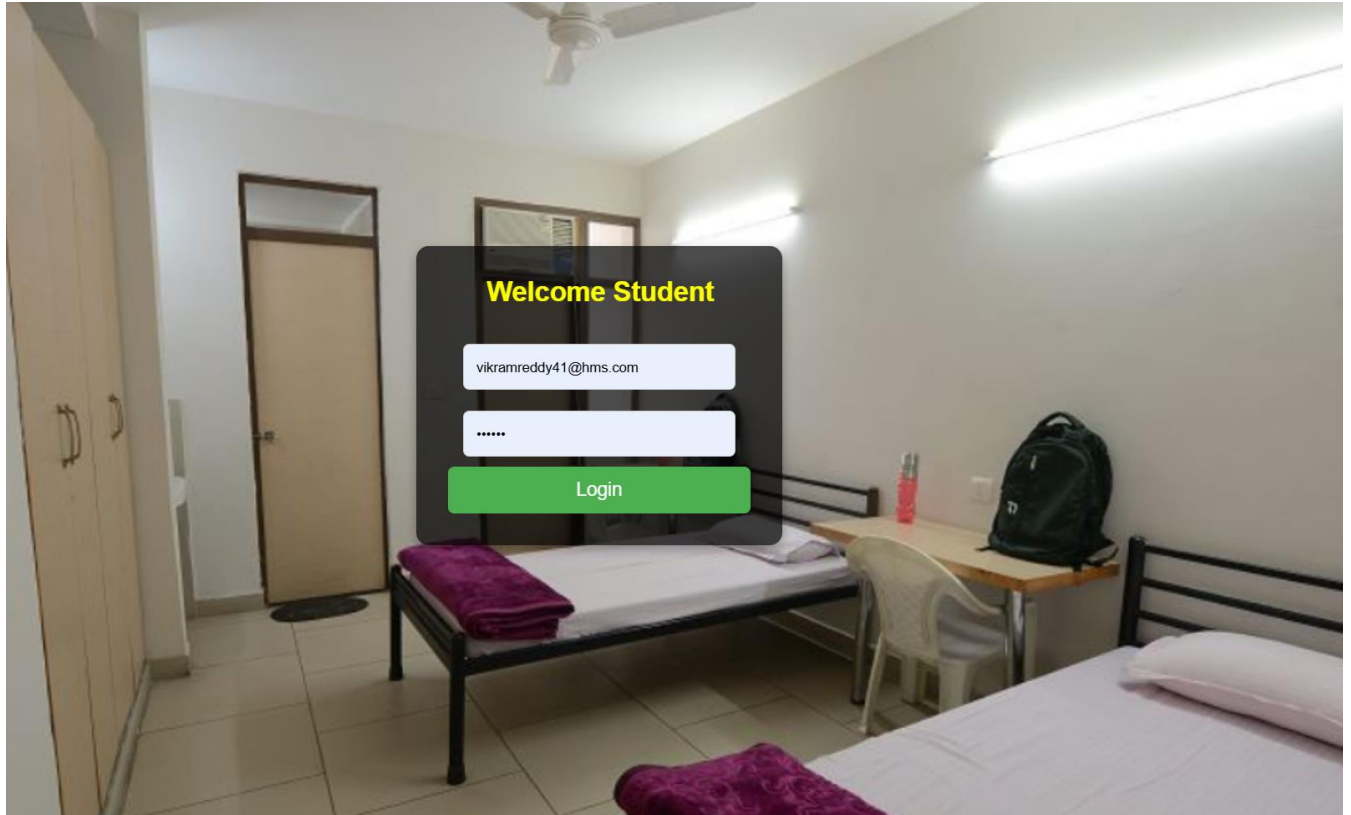
Search by Payment ID, Student ID, or Name

Search

| Payment ID         | Student ID | Student Name   | Amount | Status    | Date                |
|--------------------|------------|----------------|--------|-----------|---------------------|
| pay_QBvOFNULvVgOvC | B25100     | Vikram Reddy   | 1000   | Confirmed | 2025-03-28 00:38:21 |
| pay_QC5wWAsZ8fwLSG | B251000    | K KOTI REDDY   | 1000   | Confirmed | 2025-03-28 10:57:43 |
| pay_QBvUGu8opNAFLJ | B25101     | Priya Sharma   | 1000   | Confirmed | 2025-03-28 00:44:03 |
| pay_QD53epS2xg1GG7 | B25102     | Karthik Pillai | 1000   | Confirmed | 2025-03-30 22:44:47 |
| pay_QD77mXPYWH6BvD | B25103     | Anjali Verma   | 1000   | Confirmed | 2025-03-31 00:46:05 |
| pay_QDRaLSYrywFYVx | B25104     | Divya Verma    | 1000   | Confirmed | 2025-03-31 20:47:23 |

**Student Login:**

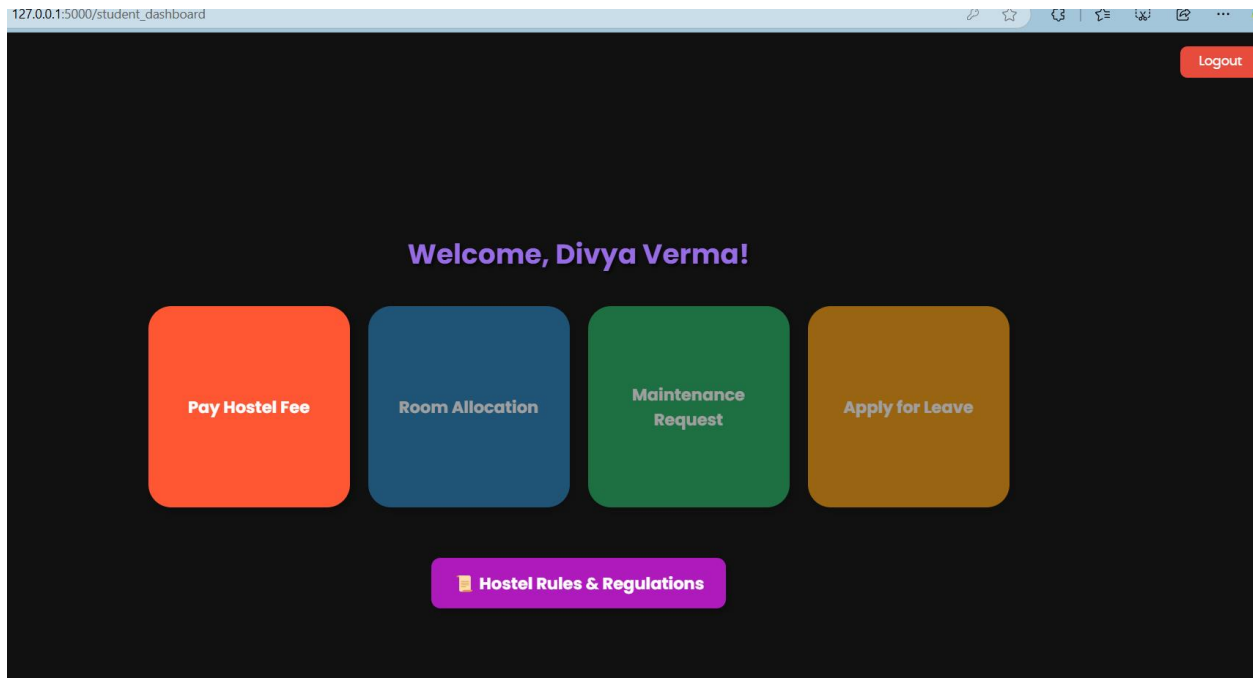
1. Visit the **HMS Login Page**.
2. Enter your **Username** and **Password** provided by the hostel administration.
3. Click on **Login** to access your student dashboard.



## Student Dashboard

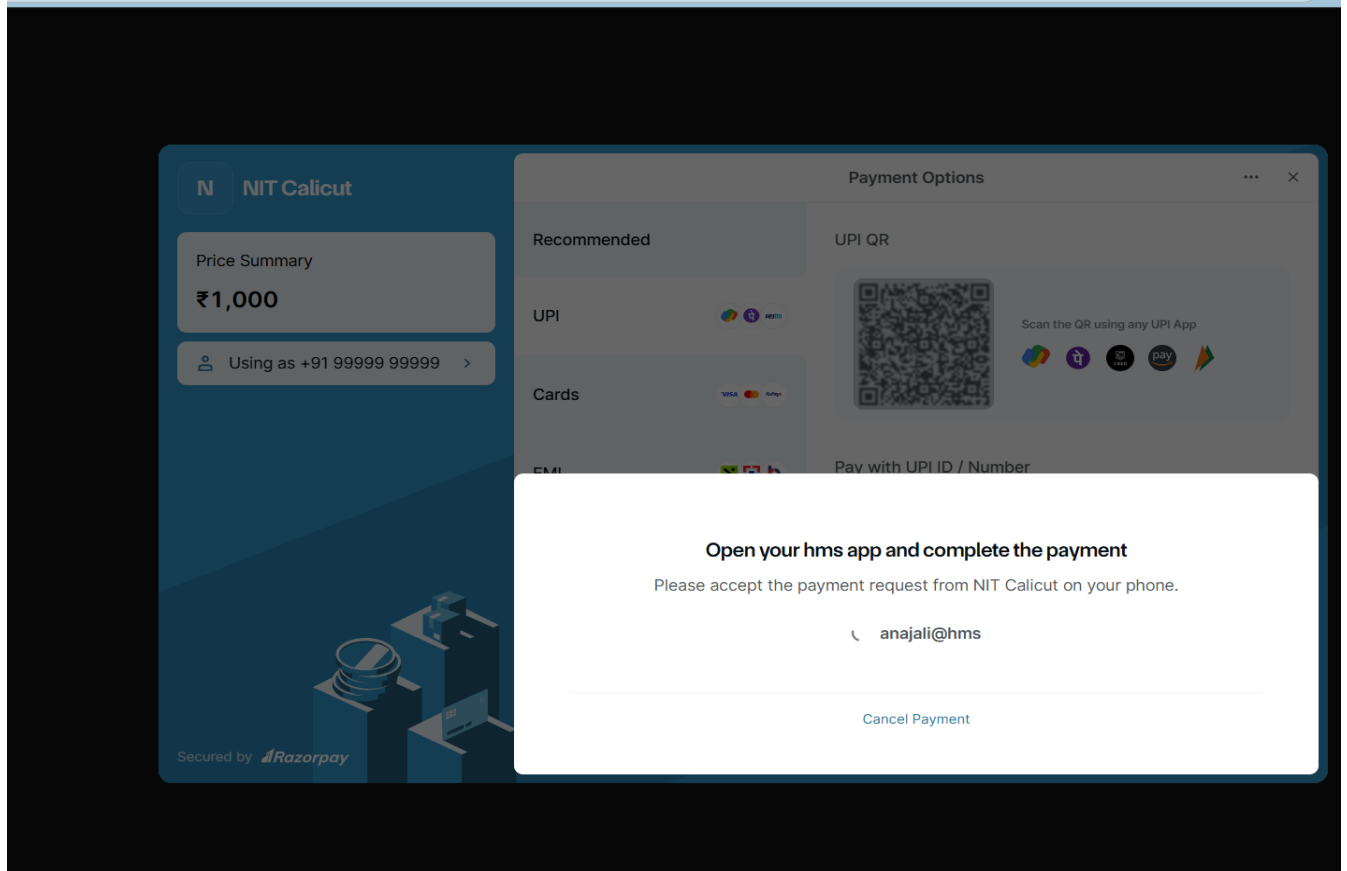
Upon successful login, students will see the following options:

1. Fee Payment (Mandatory before accessing other options)
2. Room Allocation
3. Maintenance Request
4. Apply for Leave
5. Rules and Regulations



## Hostel Fee Payment

1. Click on **Fee Payment** in the student dashboard.
2. The system will redirect you to **Razorpay** for secure payment.
3. Complete the payment process.
4. Upon successful payment, all other options in the dashboard will be unlocked.



## Room Allocation

- Students are allocated rooms in the following hostels:
  - Male Students: A, B, C Hostels
  - Female Students: G Hostel
- Room allocation is automatic based on availability.
- Each room accommodates **2 students**, and every hostel has **100 rooms**.
- Click **Room Allocation** to view your assigned room details.

Room G10 allocated successfully!

[Return to Dashboard](#)

## Maintenance Request

1. Click on Maintenance Request in the dashboard.
2. Fill in the details of the issue (Describe the issue clearly in the provided drop-down menu).
3. Submit the request.
4. The request is directly updated in the database and visible to the admin.



### Submit Maintenance Request

Please describe the maintenance issue in detail so we can resolve it quickly.

Submit Request

#### ⚠ IMPORTANT GUIDELINES

🚫 Please do not submit minor issues. Only report significant maintenance problems.

📞 If you have any queries, contact the hostel office:

📞 Phone: +91-9876543210

✉ Email: [hosteloffice@college.ac.in](mailto:hosteloffice@college.ac.in)

Return to Dashboard

## Apply for Leave

1. Click on Apply for Leave.
2. Enter the Reason and Expected Return Date.
3. Submit the leave request.
4. The leave details will be updated in the database and accessible by the admin.

**Apply For Leave**

Please describe the reason in detail and mention the date of return.

Enter Reason for leave...

Return Date:

[Submit Request](#)

[Return to Dashboard](#)

## Rules and Regulations

- Students can click on Rules and Regulations to view hostel policies.
- It is mandatory to follow all hostel guidelines to avoid penalties or disciplinary action.



## Hostel Rules & Regulations

- ✓ Students must return to the hostel by **\*\*9:00 PM\*\*** every day.
- ✓ Strict silence should be maintained in the hostel after **\*\*10:00 PM\*\***.
- ✓ Visitors are **\*\*not allowed\*\*** inside hostel rooms.
- ✓ Students must **\*\*keep their rooms clean\*\*** at all times.
- ✓ Cooking inside the rooms is **\*\*strictly prohibited\*\***.
- ✓ Alcohol, smoking, or any form of drugs are **\*\*banned\*\*** in hostel premises.
- ✓ Any damage to hostel property will result in a **\*\*fine\*\***.
- ✓ Students must **\*\*inform the warden\*\*** before leaving the hostel overnight.
- ✓ Mess food should not be **\*\*wasted\*\*** and should be taken as per requirement.
- ✓ Students must **\*\*cooperate\*\*** with hostel staff and fellow students.

[← Back to Dashboard](#)

## Troubleshooting & FAQs

### 1. Flask Not Found?

- Run:

```
``sh
  pip install flask
``
```

### 2. MySQL Connection Fails in VS Code?

- Ensure MySQL Server is running.
- Restart VS Code and reconnect.
- Verify credentials in `config.py`.

### 3. Flask App Not Running?

- Check if another process is using port 5000:

```
``sh
    netstat -ano | findstr :5000 # Windows
...`
```

- Change the port in `app.py` if needed:

```
``python
    app.run(debug=True, port=5001)
...`
```

## Support & Contact

For any technical assistance, contact the development team:

- **Email:** kotireddy2607@gmail.com
- **Phone:** +91- 8374400562