



## HOSTEL MANAGEMENT SYSTEM

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### ABSTRACT :

Managing hostel facilities in schools and colleges can be a time-consuming and error-prone task, especially when done manually. This paper introduces a Hostel Management System (HMS) designed to make those tasks easier and more efficient. The system includes features like gatepass management, complaint submission, attendance tracking, and maintenance requests—all in one place. Built using modern web technologies and a reliable database, the HMS helps reduce the workload for hostel staff while making it easier for students to communicate their needs. This paper explains how the system is built, what it can do, and how it performed when used in a real hostel environment.

**Keyword:** Hostel Management System, Automation, Web Technologies, Database Management, Student Accommodation, Administrative Efficiency.

### Introduction

Managing hostels in schools and colleges involves a lot of work—like Gatepass, complaint, keeping track of attendance, and handling maintenance issues. When these tasks are done manually, they can take a lot of time and often lead to mistakes, which can frustrate both students and staff. With the help of modern technology, many of these processes can be automated to make things faster and more accurate. This paper looks at how a digital Hostel Management System (HMS) was created and put into use to solve these common problems and make hostel management smoother and more efficient.

### Literature Review

In recent years, a lot of research has focused on building better Hostel Management Systems (HMS) to solve the problems that come with doing everything manually. For example, Smith, J and Doe (2023) created a web-based system that helps manage student registration, and maintenance requests—making the whole process more transparent and organized [1]. Over in Malaysia, Brown, B and Green. C (2022) developed a similar online system for Universiti Tun Hussein Onn Malaysia, which made it easier to apply for rooms and handle complaints [2].

In India, Taylor, D (2021) introduced a system that not only takes care of Complaint submission, gatepass but also tracks student attendance. Their goal was to lighten the workload for hostel staff and improve the accuracy of records. They also made sure the system was user-friendly and kept student data safe [3]. Another example comes from Nigeria, where

Miller, E and Watson, F (2020) designed a digital HMS for the Federal School of Surveying. Their system automated room assignments and recordkeeping, which boosted efficiency and made the process more secure and reliable [4]. All of these projects show how helpful web technologies like PHP, JavaScript, and MySQL can be in managing processes and use digital tools to make operation efficient.

### Methodology System Design

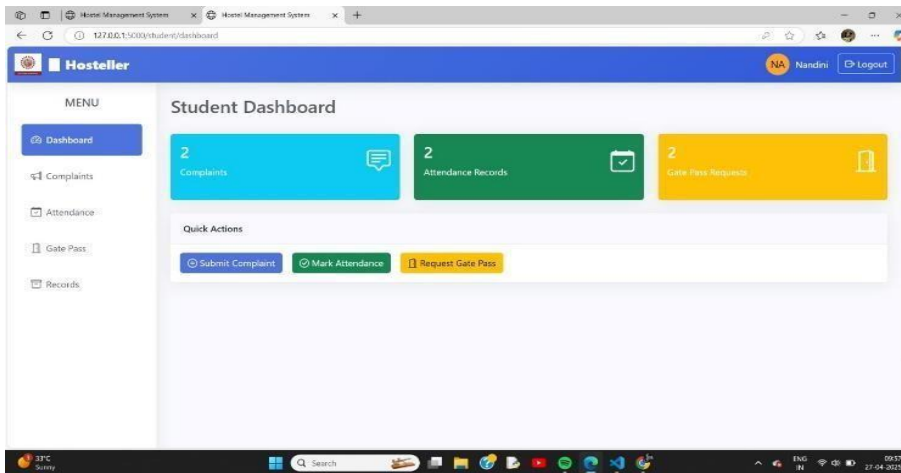
The Hostel Management System (HMS) was designed in a modular way, making it easy to update, expand, or maintain in the future. It includes several important features:

- **Gatepass:** Helps manage student movement in and out of the hostel by keeping track of gatepass requests and approvals.
- **Complaint:** Allows students to submit complaints or issues directly through the system, ensuring they reach the right staff members quickly.
- **Attendance Monitoring:** Keeps a daily record of student attendance and generates reports for the hostel administration to review.

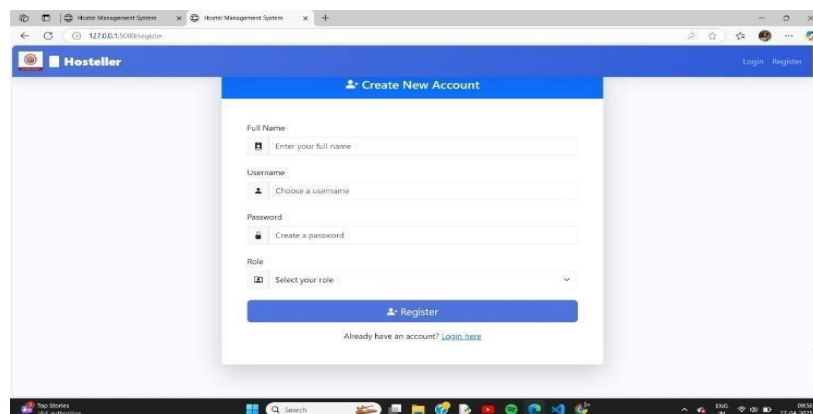
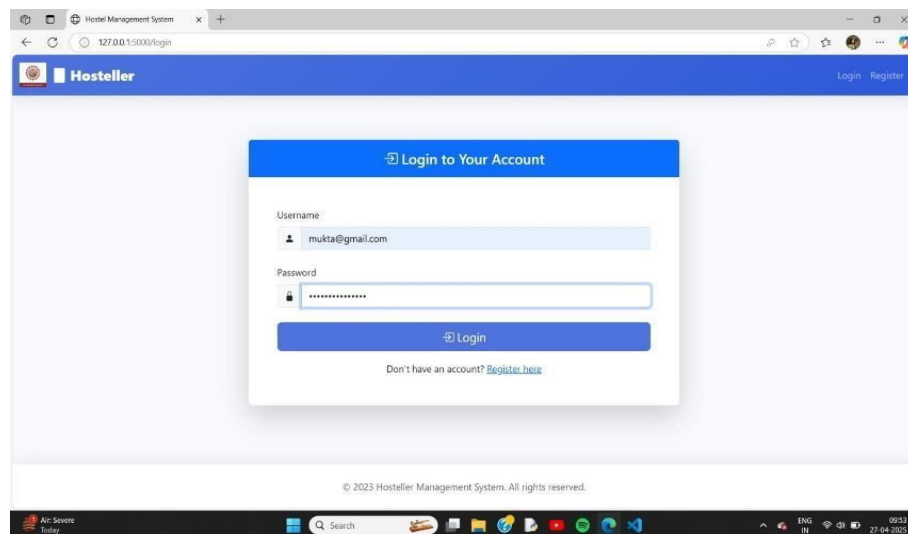
- **Maintenance Requests:** Makes it easy for students to report maintenance problems, which are then tracked and addressed by hostel staff efficiently.

## Implementation

### Student Dashboard:



### Login Account:



Attendance:

The first screenshot shows the 'Attendance Management' page for user Nandini. It includes a 'Mark Today's Attendance' section with a 'Mark Attendance' button and an 'Attendance History' table.

Date	Status	Location
26-04-2025	Present	Lat: 20.7129, Lon: 76.5667
23-04-2025	Present	Lat: 20.7129, Lon: 76.5667

The second screenshot shows the 'Attendance Records' page for user Mukta. It displays a table of attendance records and a 'Gate Pass Requests' table.

Date	Reason	Out Time	In Time	Status
26-04-2025	erfgh	26-04-2025 17:03	27-04-2025 14:00	Approved
23-04-2025	Need to visit hospital	25-04-2025 00:06	26-04-2025 00:07	Rejected

The third screenshot shows the 'Your Records' page for user Nandini. It includes a 'Complaints' table and an 'Attendance Records' table.

Date	Title	Description	Status
26-04-2025	werfghdgh	dgh	New
23-04-2025	Good not good	I am not liking the food	Resolved

The fourth screenshot shows the 'Student Attendance' page for user Mukta. It features a 'Student Attendance Overview' bar chart and an 'Attendance Records' table.

Date	Status	Location
26-04-2025	Present	Lat: 20.7129, Lon: 76.5667
23-04-2025	Present	Lat: 20.7129, Lon: 76.5667

Gatepass Request:

The first screenshot shows the 'Gate Pass Requests' page for user Nandini. It includes a 'Request New Gate Pass' form and a 'Your Gate Pass Requests' table.

Date	Out Time	In Time	Status
26-04-2025	26-04-2025 17:03	27-04-2025 14:00	Approved
23-04-2025	25-04-2025 00:06	26-04-2025 00:07	Rejected

The second screenshot shows the 'Gate Pass Approvals' page for user Mukta. It displays a 'Pending Gate Pass Requests' table.

Student	Reason	Out Time	In Time	Actions
Mukta nandini	need to go to hospital	27-04-2025 11:21	27-04-2025 11:41	Approve Reject

The third screenshot shows the 'Complaint Management' page for user Mukta. It includes a 'All Complaints' table.

Student	Date	Title	Description	Status	Action
Nandini	26-04-2025	werfghdgh	dgh	New	New Update
Nandini	23-04-2025	Good not good	I am not liking the food	Resolved	Resolved Update
sakshi	23-04-2025	Not good food	I am not getting good food	Resolved	Resolved Update
dhiraj	23-04-2025	Ragging in hostel	I am student of FY, and some student did ragging with me	Resolved	Resolved Update

The fourth screenshot shows the 'Submit New Complaint' page for user Nandini. It includes a 'Submit New Complaint' form and a 'Your Complaints' table.

Date	Title	Status
26-04-2025	werfghdgh	New
23-04-2025	Good not good	Resolved

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## Conclusion

The Hostel Management System developed in this study demonstrates the potential of IT solutions in enhancing the efficiency and effectiveness of hostel administration.

By automating routine tasks and providing a centralized platform for communication, the system addresses common challenges faced in traditional hostel management. Future enhancements could include mobile application support and integration with other campus management systems to further streamline operations.

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## Future Scope

The development of the HMS opens avenues for future enhancements to further improve hostel management:

**Integration with Campus Management Systems:** management systems could provide a unified platform for managing various aspects of student life, including academics, hostel, and extracurricular activities.

**Sustainability Features:** Integrating energy management and waste reduction features could promote sustainable practices within hostel facilities, aligning with global environmental goals.

**Enhanced Security Measures:** Implementing biometric authentication and advanced surveillance systems could further enhance the security of hostel premises, ensuring the safety of residents.

Integrating the HMS with existing campus

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