

Hostel Management System

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Abstract: A web application called the Hostel Management framework was developed for handling various hostel activities. With the aid of the web application to hostel, students can book hostels allowing them to choose rooms for themselves, and other features, this project is expected to reduce the amount of human work and make hostel allocation much simpler for students and hostel administrators. The number of educational institutions has been growing quickly in recent years. As a result, there are more hostels available for the students who are considering attending this college. Additionally, the person in charge of the hostel is under a great deal of stress going forward, and websites are rarely used in this particular situation. This particular project handles hostel-related concerns and aids in handling problems that arise when information is transmitted manually.

Keywords: Hostel, Mess, Fees, Registration, Allotment, Management

I. INTRODUCTION

Over the past forty years, there has been a global, astronomical increase in the number of educational institutions. People now have access to education thanks to this development. As a result, it has increased knowledge and contributed to the development of a population of educated citizens who can easily adhere to the rules of a civilised society.

Most recently founded educational institutions still operate largely according to the standard practises for managing hostel facilities as well as for keeping track of all records. This outdated manner of document management consequently has a negative impact on the institutions. The suggested framework addresses the drawbacks of conventional methods for managing hostels; it is more user-friendly and graphical-UI focused.

An online platform is created to oversee various hostel activities. The user-friendly GUI makes it very simple to automate, coordinate, and manage all of the hostel office management activities. This is an internet site that is created with PHP and javascript(node js) in front-end and back-end along with CSS in front-end and SQL for Database. This will be a huge relief to the staff. Particularly in large institutional organisations with a sizable number of hostels, it is particularly beneficial.

We made use of the following languages for our website:

- **CSS:** CSS stands for Cascading Style Sheet, a straightforward method of including styles to web pages. It is primarily intended to permit the separation of a document's presentational aspects, like its layout, colours, and fonts, from its content.
- **JavaScript:** JavaScript is a client-side scripting language that can be used inline, internally, and externally. It is used to communicate with the user, such as when the user inputs a value. JavaScript is the medium used when we wish to run any script on the browser.
- **PHP:** Hypertext Pre-processor is a server-side scripting language used for general-purpose programming as well as web development.
- **HTML:** Hyper Text Markup Language, or HTML, is a markup language used to create web pages and other content that can be viewed in a web browser. It also includes numerous tags that are used for a variety of purposes.

II. PROBLEM STATEMENT

Physical work is done to confirm the registration for the various information processing. There are many redundancies that can be successfully avoided in this approach. There is also a great deal of pressure on the hostel manager, and web

apps or software are not typically used in this particular situation. This project deals with hostel-related concerns while avoiding problems that arise when physical handled including data security and integration.

III. OBJECTIVES

The main objective of the system is to help automate basic hostel management activities like:

- To insert the student details and another records.
- To calculate the hostel accounts in an easy manner.
- To allot rooms to the hostellers.
- To provide data integrity of the student using approved login.
- To provide simultaneous access to the site.

IV. LITERATURE SURVEY

Currently, the entire administrative structure for hostels is carried out physically. The hostel and student data are preserved in a variety of records or information formats in different groups.

According to the student's requests and the room necessities, space is apportioned. A booklet or notice board is used to keep track of hostel offices and other information. Student information, registration information, room status is all recorded in registers and require manual entry.

Data retrieval is extremely challenging under the current framework due to the large volume of documents. In the current system, data security and integration are important concerns. Natural disasters that result in data loss are not yet addressed by the current system.

The existing framework lacks a PC-based database for document storage. The entire procedure is time-consuming and a waste of resources, both material and human. Searching and managing records is a highly challenging task.

V. SYSTEM

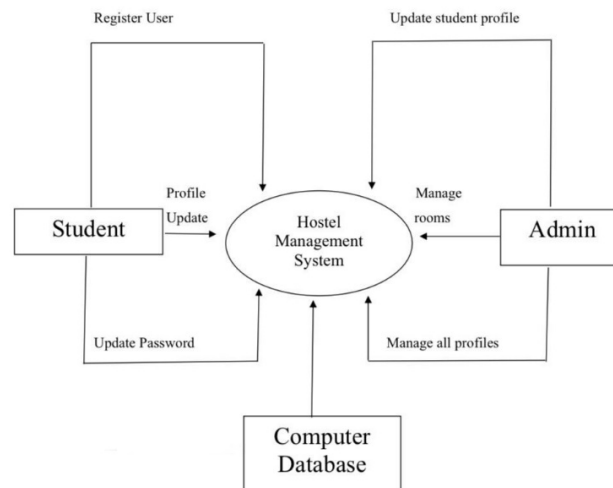
Hostel management, a framework that is a web application, is suggested as a way to get around all the drawbacks of the current system. Everything that happens in the hostel is automated by this system.

The system offers data integration and security, which address two significant shortcomings in the present situation. It also offers a smooth operation for retrieving data in a more systematic manner, saving a significant amount of time and human effort.

The system, which is a website, operates with a reliable database that solves the issue of data redundancy, helps to store student and other information, guarantees data integrity, and connects all of those students and management.

With the help of this framework, students and employees can handle various tasks electronically.

V(A). SYSTEM BLOCK DIAGRAM



V (B). SYSTEM MODULES

The framework is divided into two distinct modules.

- Administrator
- Student

A. Administrator Module

- Login to administrator module: Only authorized user is allowed to access the information to the website once he/she verifies themselves by providing user account and password.
- Profile: User can view and update their profile to make any changes. They can also change their password which requires old password.
- Rooms: This page has many functionalities. Here user can add rooms, allot rooms to the students, view room allotment and change or remove the rooms.
- Students: This page allows user to manage students. User can add students, update their details, add mess card for the students.

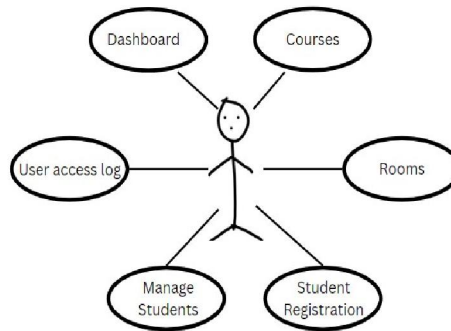


FIGURE 1: Admin use case diagram

B. Student Module

- Login to Student Profile: Only authorized students are allowed to access the information to the website once he/she verifies themselves by providing user account and password.
- View Profile: Students can only view their profile and are not allowed to make any changes. If any changes they want to make, they must approach to administrator or warden.
- Change Password: Students can change or update their password by entering old and new password.

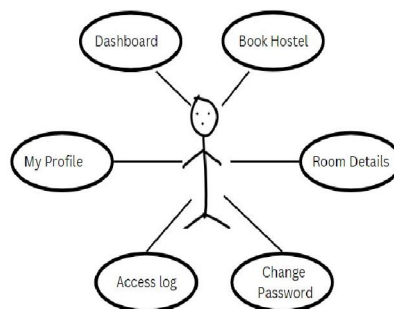


FIGURE 2: Student use case diagram

V(C). BENEFITS of SYSTEM

Automates all tasks necessary to manage hostel administration.

The use of databases will facilitate easy data retrieval and manage information concurrency.

Provides data integration and privacy through authentication of each user.

It is reasonable since all the data is online and accessible from anywhere, doing away with the need for document keeping.

V(D). LIMITATIONS OF SYSTEM

Both buyers and vendors should be responsive to mobile devices. It will be challenging for the user to use the application if they don't know how to use a mobile device.

Users must have internet access in order to access the application because it is an online procedure.

V(E). HARDWARE AND SOFTWARE TOOLS

Software Requirements	LAMP, MAMP, WAMP, XAMP
Platform	Windows 7 , other latest platforms
Programming languages	HTML, PHP, SQL, CSS, Javascript

VI. RESULTS

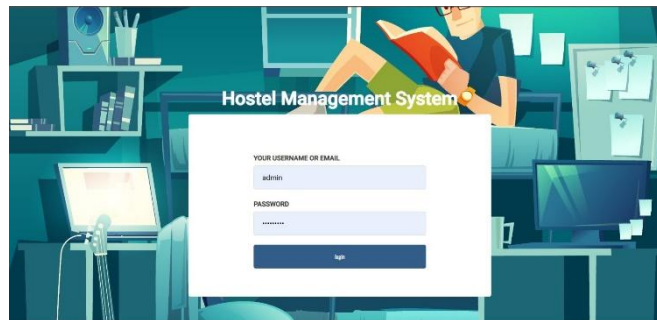


FIGURE 3: Login Page

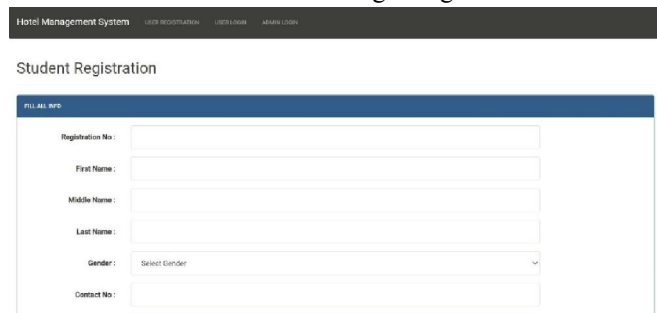


FIGURE 4: User registration form



FIGURE 5: User Dashboard

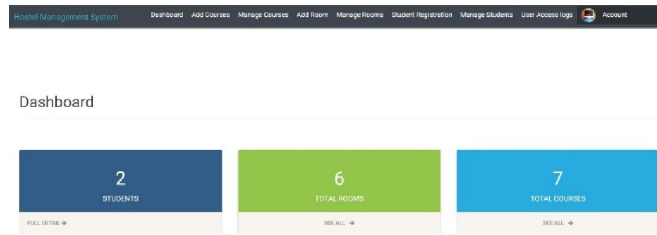


FIGURE 6: Admin Dashboard

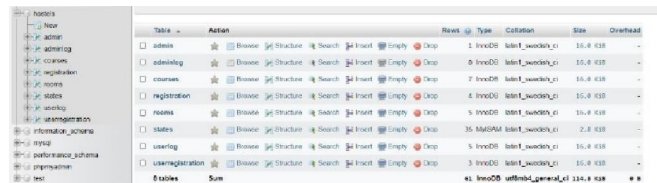


FIGURE 7: Database

VII. CONCLUSION

Briefly speaking about the framework, the project developed using HTML, PHP, JavaScript, and MySQL is based on research into the current framework and the user's requirements, with room for future development. An appropriate strategy for programming development is necessary for the functionality of the current programming. Those who need to manage various hostel operations should use this website for hostel administration. Since there are more colleges and universities than ever before, and there are also more students than ever, so an automated system that can minimise human effort and make management simple and more technologically oriented is needed

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