

Hostel Management and Logistics

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Abstract:- The count of educational institutions in India has been growing rapidly in the past few years. As a result, there are many hostels, PGs built by the institute's management. As of now, the student database has been in registers physically. The allotment of dormitory, fee payment, student attendance was taken manually. This is a hectic work and may lead to loss of data as well as it lacks proper and structured maintenance. Analyzing all the above problems, we have come up with a solution known as "Hostel Management and Logistics". This is a website that provides completely digitalized dormitory registration, it also helps us in tracking the check-in and check-out time stamps of each student using their face recognition as an identity. Our website provides inventory mess management by tracking the amount of raw materials that arrive into the hostel mess and how much food is being consumed by the students.

Keywords:- Hostel Management, Attendance, Student, Room Allotment, Fee Payment.

I. INTRODUCTION

Hostel management and logistics refer to the set of activities involved in running a hostel efficiently and effectively. Hostels are accommodations that provide temporary lodging for individuals or groups of travelers at affordable rates. Hostel management involves coordinating and organizing the various aspects of the hostel, including accommodation, food, sanitation, security, and customer service.

Logistics in hostel management refers to the procedure of dealing with the flow of products, services, and facts between different parts of the hostel. This includes managing the inventory of supplies and food, arranging transportation for guests, and coordinating with suppliers and vendors. Effective hostel management and logistics require a variety of skills, including strong communication, organization, and leadership abilities. Hostel managers must be able to effectively manage staff, handle customer complaints, and maintain a clean and safe environment for

guests. They must also be able to identify and respond to changing guest needs and preferences.

In addition to managing day-to-day operations, hostel managers and logistics professionals must also be able to develop and implement strategies for long-term growth and profitability. This may involve identifying new opportunities for revenue generation, developing partnerships with local businesses, or implementing new technologies to improve efficiency and guest experience. Overall, hostel management and logistics are essential for ensuring that guests have a comfortable and enjoyable stay while also maximizing the profitability of the hostel. The usage of this internet site protect all tactics sustained in controlling hostels. Emerging this internet site requires 4 languages that can be:

➤ *HTML:*

This represented as Hypertext Markup Language. This language used for generate and designing web sites as well as applications too.

➤ *Java Script:*

It is a high-level, dynamic programming language that is commonly used in website development.

➤ *My SQL:*

It is an open-source relational database control system (RDBMS) that is widely used for storing, organizing, and managing data.

➤ *Java:*

It is a high-level, object-oriented programming language that is generally used for developing applications, particularly in enterprise and web development.

II. LITERATURE SURVEY

Our project is developed in such a way that it can solve all the problems in hostel management and Logistics like Allotment (attendance, registration), Fee management (mess and hostel), attendance report included with student check-in

time, Mess management by displaying the food menu daily from breakfast till dinner. It will be a user friendly. It helps college management to manage and monitor students staying in hostel.

In our survey we found some relevant research papers which used certain models that would help us developing our project.

The project “Hostel Management System” was developed to manage the room allotment, mess management, and student registration. It was not able to concentrate on the student’s attendance and student feedback. [1] The project “Online Hostel Management System” mainly deals with the room allotment and mess calculation. It was not concentrating on student’s attendance, fee payments and student’s feedback.

[2] Hostel accommodation control device is a person-pleasant pc-primarily based machine for dealing with hostel prerequisites in establishments. It has been originated to automate, manipulate and appearance later general computing of information of students consists in massive hostel. The developed gadget offers approach to guide hostel management problems and additionally gives records together with hostel information, hostel room information, and hostel money owed records. The System was not able to track regular attendance of a student and has least possibility in applying online gate pass for them. [3]

“ONLINE HOSTEL MANAGEMENT SYSTEM” is software program developed for dealing with diverse sports in hostel. In the recent past the quantity of academical establishments is growing quickly. This unique assignment offers with troubles on handling a hostel and ignores issues which arise whilst fetched in manual manner. Identity of disadvantages of the prevailing machine ends in the designing of automatic device in order to be like minded to the existing machine with the device that is greater consumer friendly and extra GUI oriented. It was not able to track students attendance using face recognition/bio-metrics. No consolidated report was generated. [4]

In the given gadget, we can without difficulty managing hostel info, room information, student data, mess expenses, mess bill computation, clean way of room allotment and also attendance of hostel students. Functional Feature of the project are architecture and Block information. Providing various types of rooms (Single / double/Single with Air-conditioner Room/Double with Air-conditioner Room), Allocation of room to students, Student enroll and vacate, Examining registers of visitors and guests, Any room transfers, Room removals. The project was not able to provide accurate number of students list for the mess administrator to prepare sufficient food. Data redundancy is also a disadvantage. [5]

Online Hostel Management System for UMT hostels. Current management is still using file system. This system will provide a bridge between the university and overseas/foreign students. The university’s hostels are one of its

strengths which must be utilized more efficiently. The basic need of overseas students is hostel. Students will be able to get all information they need regarding UMT hostel. They will be able to perform complete procedure without needing to travel whereas; wardens will have a synchronized and efficient system in hand to keep the track of every little detail about students. The system was mainly focusing on NRI students hostel facility. It was cost expensive. It doesn’t provide mess management for mess in-charge. [6]

The Hostel control gadget which is an online website online evolved for handling extraordinary activities inside hostel. That is a virtual web page that consist of advanced HTML and CSS for the front end. The fundamental hostel governance sports incorporate various activities like, Administrant able to send the acceptance notice to scholars via G-mail, Adding scholar info and also different statistics.

Allocation of rooms to students. Student's fluctuation can be tracking through RFID. Out pass utility for scholars. Offering statistics cohesion of pupil, the use of accredited login Attendance statistics were not maintained. No proper consolidated report was available to track student’s attendance. Mess in-charge has no information about number of students present in the hostel. [7]

The Hostel control framework is an internet application that's created for coping with extraordinary sports inside hostel. It instructs guard with regarding to their wards and their appearance in hostel and also their program might be knowledgeable to their respective belongings such as dad and mom through this approach in just one tap. In final, some years the quantity of instructional institutions is increasing fast. This precise venture manages the problems on negotiation with hostel and also to be of use to negotiate any type of arguments of matter which take place fetched manually. Room allotment was done manually. The project mostly focused on approving out pass for students and circulating information for their parents. [8]

The project hostel management system was mainly concentrating on the allotment of rooms and vacancies of rooms. It was carried out by an admin who is just able to access student details and allot dormitories for each person. This project was based on PHP and does not have any future scope. The main disadvantage is that it does not concentrate on student attendance and a mess management system. It does not contain a fee payment module. [9]

The hostel application developed to be convenient for the use of digitalized ways to get proper communication between students and the warden. It was developed to manage and solve the complaints raised by the hostel students and upload necessary information like food and circulars. It was not able to allot rooms for the hostel students and was not able to provide attendance management for the students. [10]

An application was developed online known as merit point management system. It was based of rating of merit a student has in his educational career. If he or she is good in

their academics, they will be allotted a dormitory in the hostel. This was mainly due to the shortage of hostels in that area. The system was not able to concentrate on the hostel attendance of the students, their food menu and fee transactions. [14]

The project Hostel complaint management system is developed in such a way that it might be helpful for the students to raise complaints against the hostel management if there are any issues faced by the students like food, water internet and cleanliness of the room and hostel premises. They can also report ragging in the given space so that they might not get ragged after that. [11] The project was based on tracking complaints and feedback of the student but was not able to provide a proper platform for them to register and pay fee and give their attendance.

III. EXISTING SYSTEM

The population of students getting admitted into higher institutions has been rapidly increasing day by day. The existing system was solely concentrating on the allocating hostel rooms and mess management system for every individual. the main drawbacks of the existing system are:

- Attendance was taken manually and updated later in the server by the warden/manager.
- Consolidated report of student's time of presence was not calculated by taking their check-in and check-out timings.
- No proper system to effectively monitor the attendance of a student.

IV. DISADVANTAGES OF EXISTING SYSTEM

- Limited customization: Some existing hostel management systems may not be flexible enough to meet the unique needs of each hostel or hostel chain. This can result in the need for manual workarounds or inefficient processes.
- Technical issues: Hostel management systems may face technical issues, such as slow performance, data loss, or system crashes. These issues can disrupt the normal functioning of the hostel and create delays in essential processes.
- Cost: The cost of purchasing, installing, and maintaining a hostel management system can be significant, especially for small hostels.
- Learning curve: Hostel management systems can be complex and may require specialized training to use effectively. This can be time-consuming and may result in a steep learning curve for hostel staff.
- Integration challenges: Integrating a new hostel management system with existing systems and processes can be challenging and may require additional resources.
- Security concerns: Hostel management systems may store sensitive information about guests, such as personal information and payment details. Overall, while hostel management systems can offer many benefits, there are also potential disadvantages that should be considered before selecting and implementing a system.

V. OBJECTIVE

Our objective is to build a website for Management and logistics of hostels using java and MySQL. The Administrators can track hostellers' data like the student's check-in and check-out time, their time of presence in the campus, and status of the rooms availability and enable online booking. Taking facial recognition of the students which updates their attendance in the server automatically.

VI. PROPOSED SYSTEM

The main purpose to build a website called as Hostel Management and Logistics is to digitalize all the functionalities that are included in managing a hostel. To overcome the drawbacks in the existing system, the implementation of finger print is done for taking the students attendance and updating it automatically in the server. It makes work easier for the hostel warden to supervise the student attendance digitally by logging into the website from any location. It also keeps a close track on the student's presence time in the hostel premises and helps to identify the amount of food to be prepared by the Mess manager.

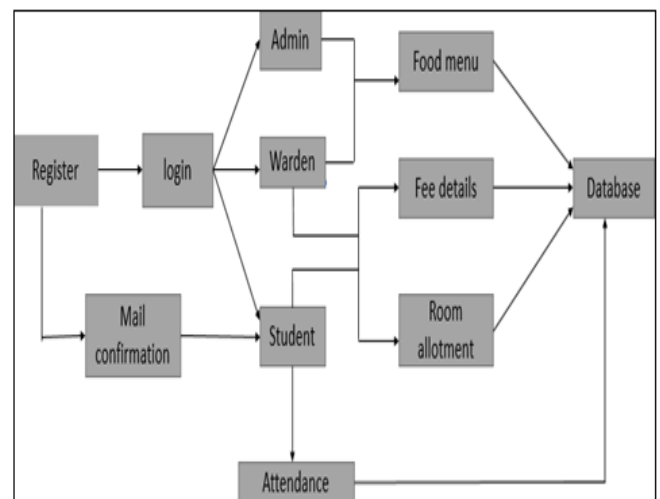


Fig 1 System architecture of proposed system

The Hostel Management and logistics is a web-based system designed to help hostler students to get allotted with their rooms, get attendance, view feedback and many other facilities. It is built on a client-server architecture, with a web server providing the front-end interface and a database server providing the back-end functionality. The user interface of the system is built using HTML, CSS, and JavaScript. It provides a web-based interface for users to view and manage hostel reservations, bookings, and other administrative tasks. The back end of the system is built using PHP and MySQL. In the beginning, the student and warden has to register themselves in the portal. After registering successfully, a mail confirmation will be sent to the student. The student will then be able to pay his hostel fee and get a room allotted to him. He would also give his attendance by logging in to the website. The admin/ warden can view/add the food menu by updating daily food menu in the portal.

VII. ADVANTAGES OF PROPOSED SYSTEM

- This project reduces the work of entering students’ data manually.
- It enables student, admin and manager logins for mess and hostel, to check availability and allotment of hostel rooms.
- Track of student’s attendance and inventory management system for mess, i.e., it enables the mess in-charge to know the amount of food to be prepared and update the amount of groceries utilized.

VIII. MODULE IDENTIFICATION

➤ *The Major Modules of the Project are*

- **Admin Module:**
Admin is the one who maintains the whole site. He can add students to our site and all the details regarding students are taken care by admin. Student Insertion, Updating and deletion are taken care by the admin module. Admin inserts

the daily menu in the site. He also inserts all the fee details of student; all these details are stored in the database. He maintains the student fee details and payment made by the student. Admin can also view all the feedback given by the students.

- **Warden Module:**
In this module student can update his profile. All these values are stored in the database. Room allotment to student is done by warden. He also receives feedback from the students to improve their quality of maintenance.

- **Student Module:**
In this module student can update his profile. All these values are stored in the database. View menu student can view all the menu details by providing date. Student can send feedback regarding items served in the hostel and they can also post comments regarding the site performance. Each student can view his bill by providing required information.

IX. RESULTS

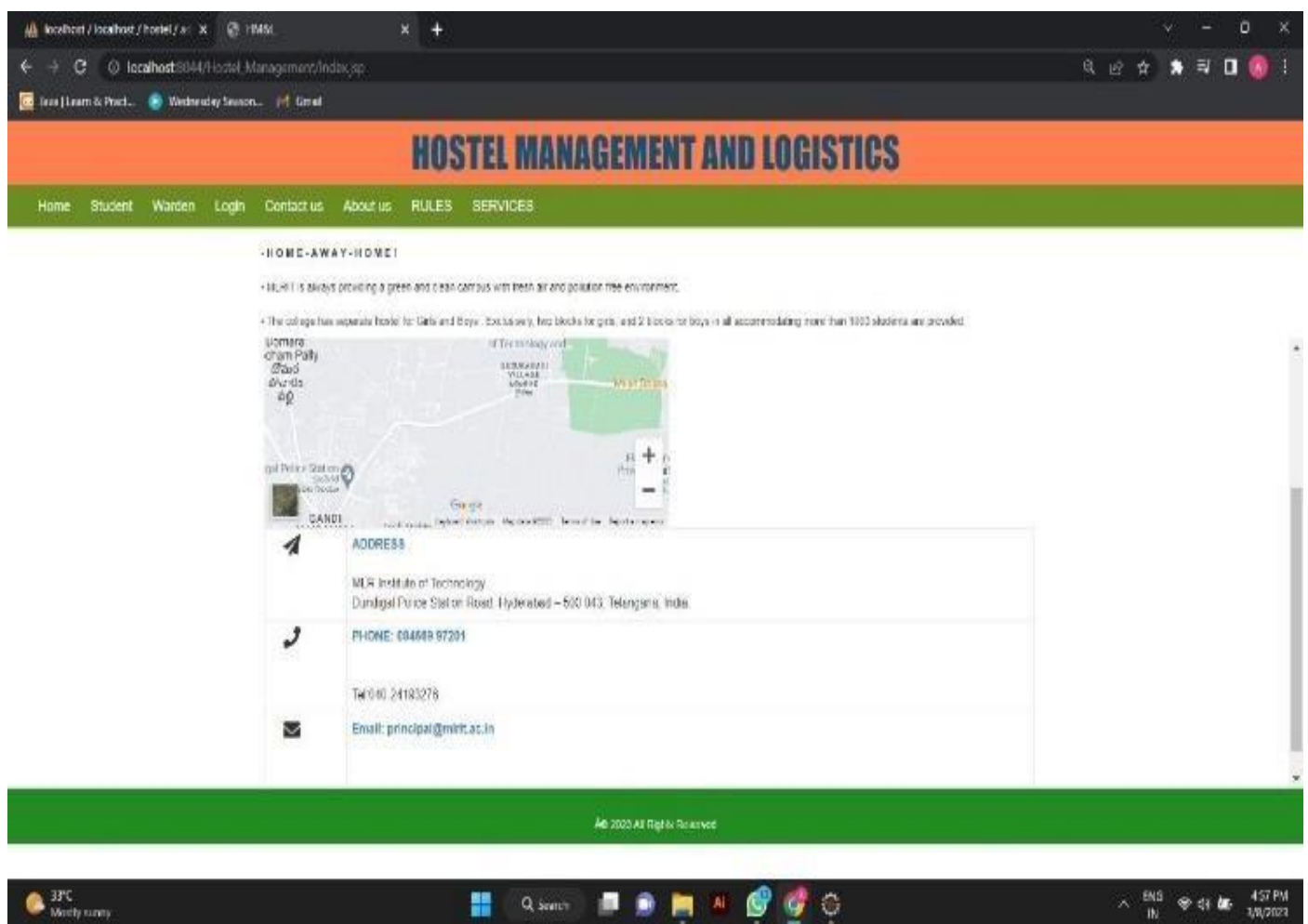


Fig 2 Home Page of the Website

Here we can see the front look of the project, and it contains a small description of the hostel, and other details like hostel location, mobile number to contact the hostel admin, collegemail id and other valuable information.

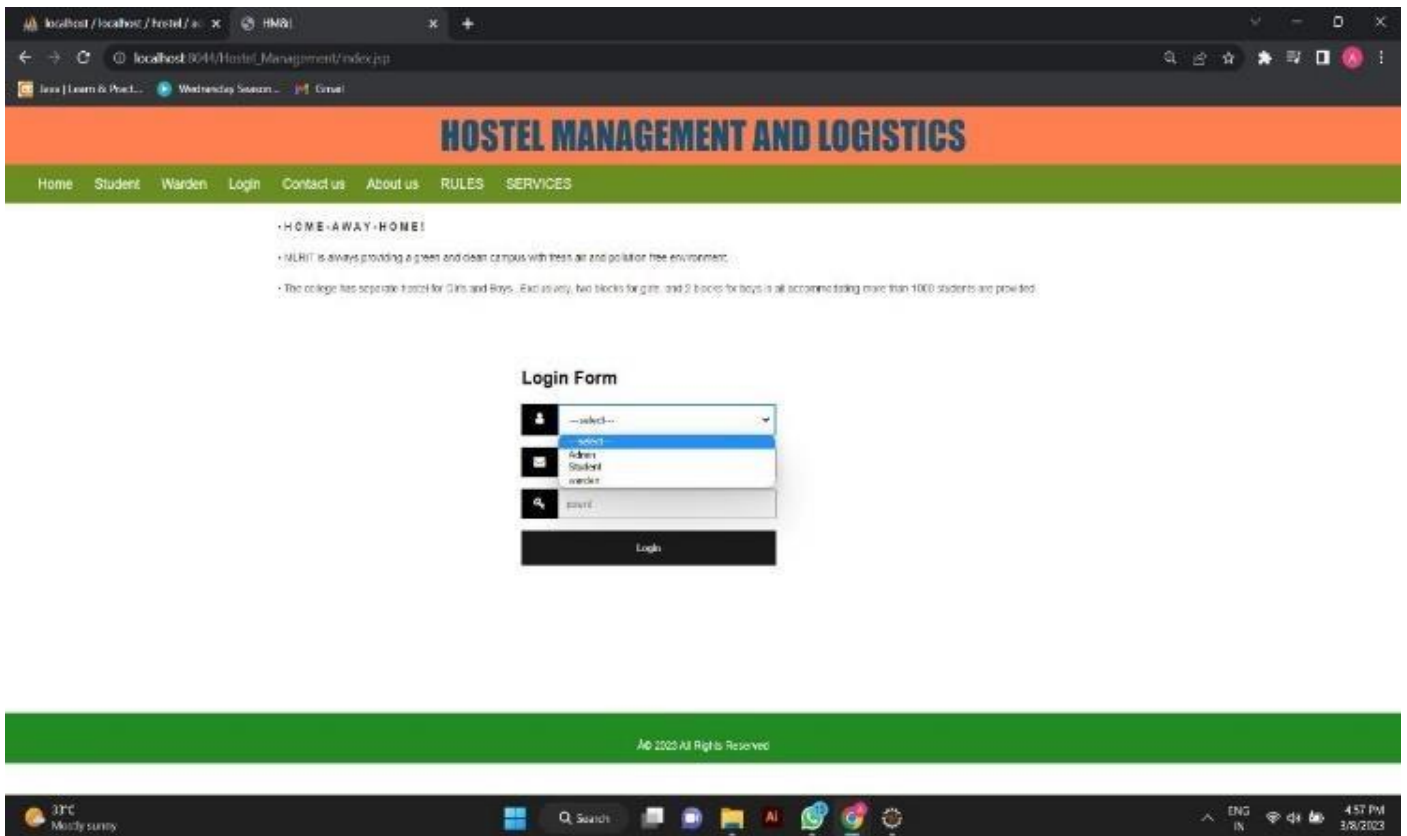


Fig 3 Login Form

This is our project's login page. The login form contains login for three groups of people. One for the admin, one for warden, and one for the student. They need to login with their username and their password.

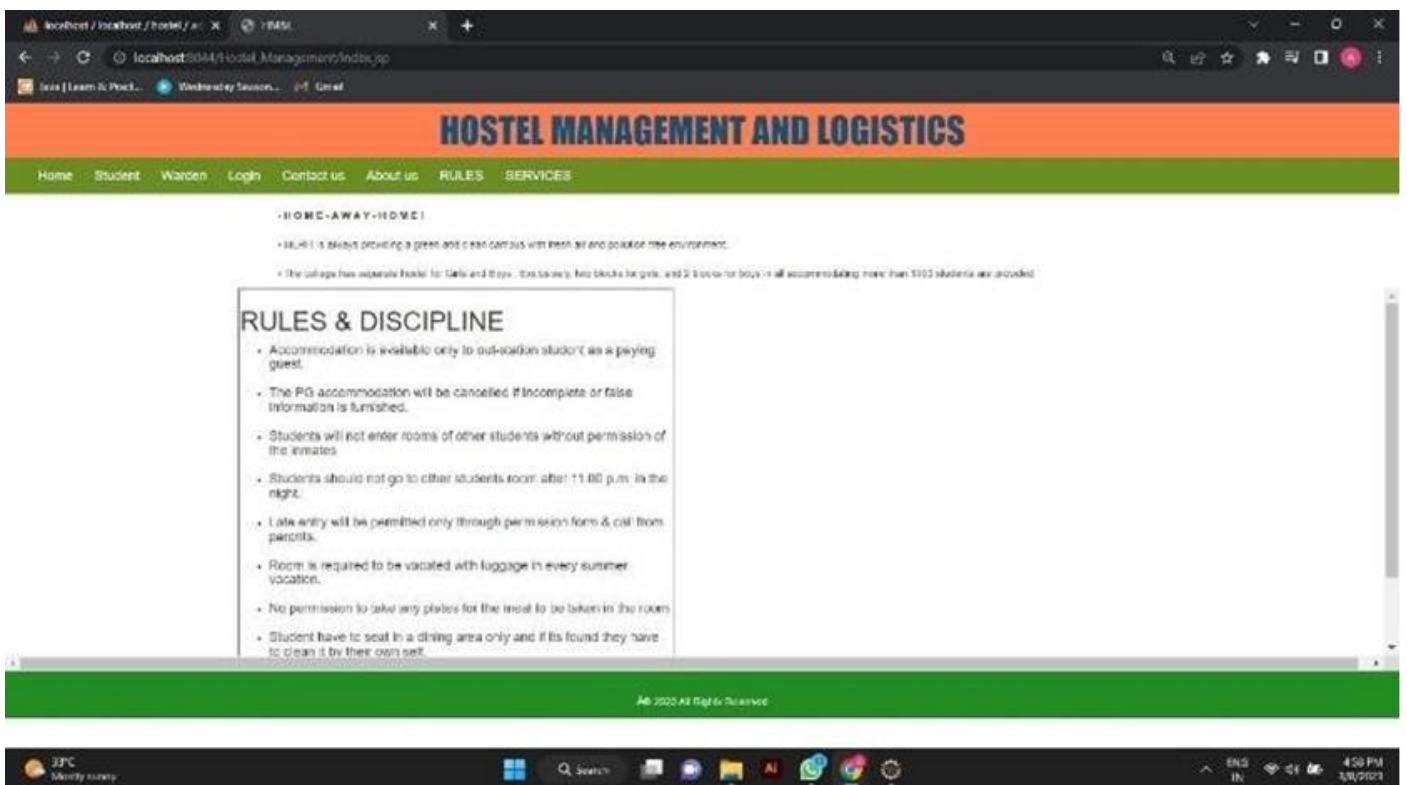


Fig 4 Rules and Regulations

This page shows the rules and regulations to be followed in the hostel premises and other important disciplinary actions to be taken by the students for a safe residing in the hostel.

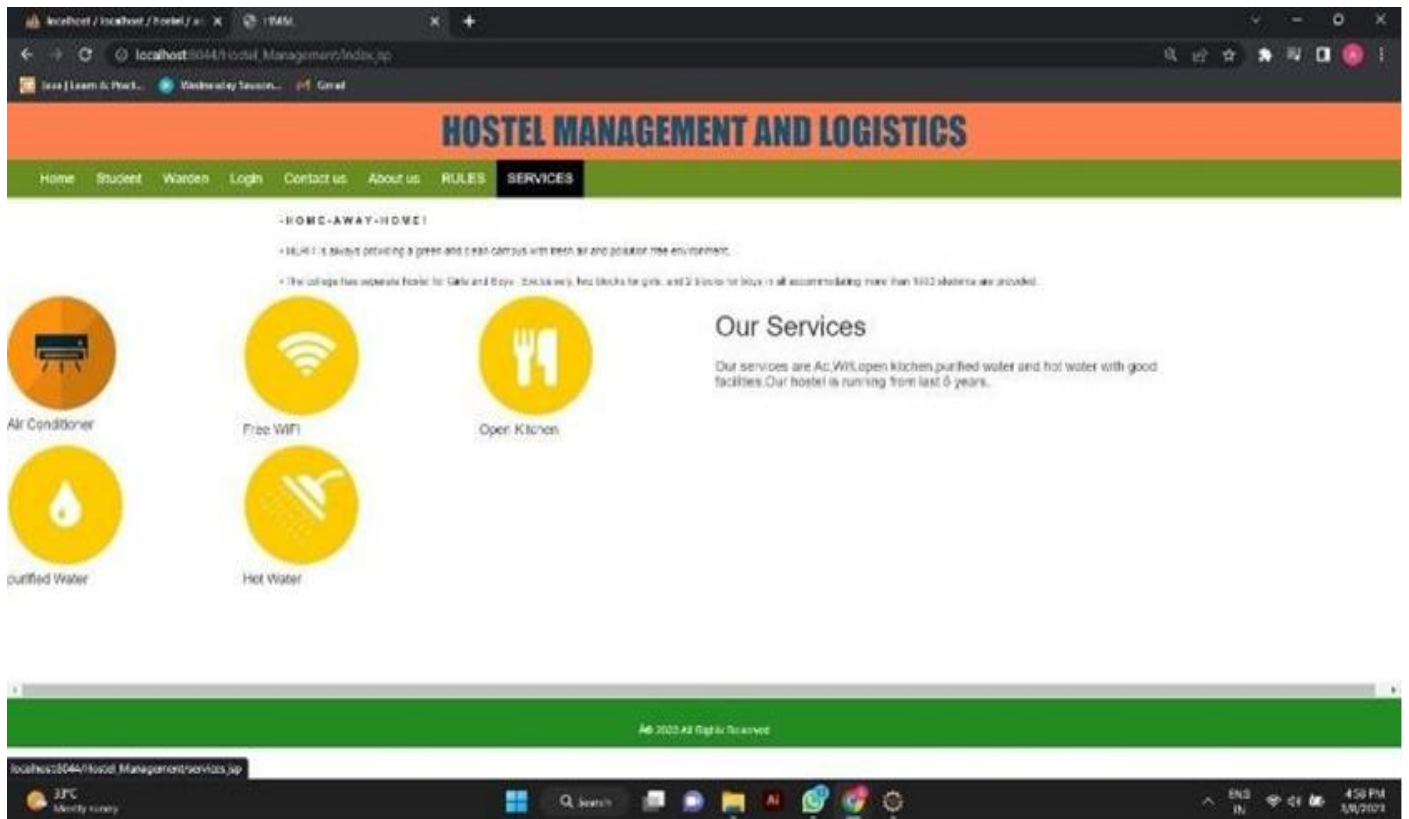


Fig 5 Services Provided

Here we can see all the services that are provided by the hostel management like Wi-Fi, hot water, hygienic food, purified drinking water etc. These are the basic services to be provided by any large hostel facility that accommodates around 1000 students.

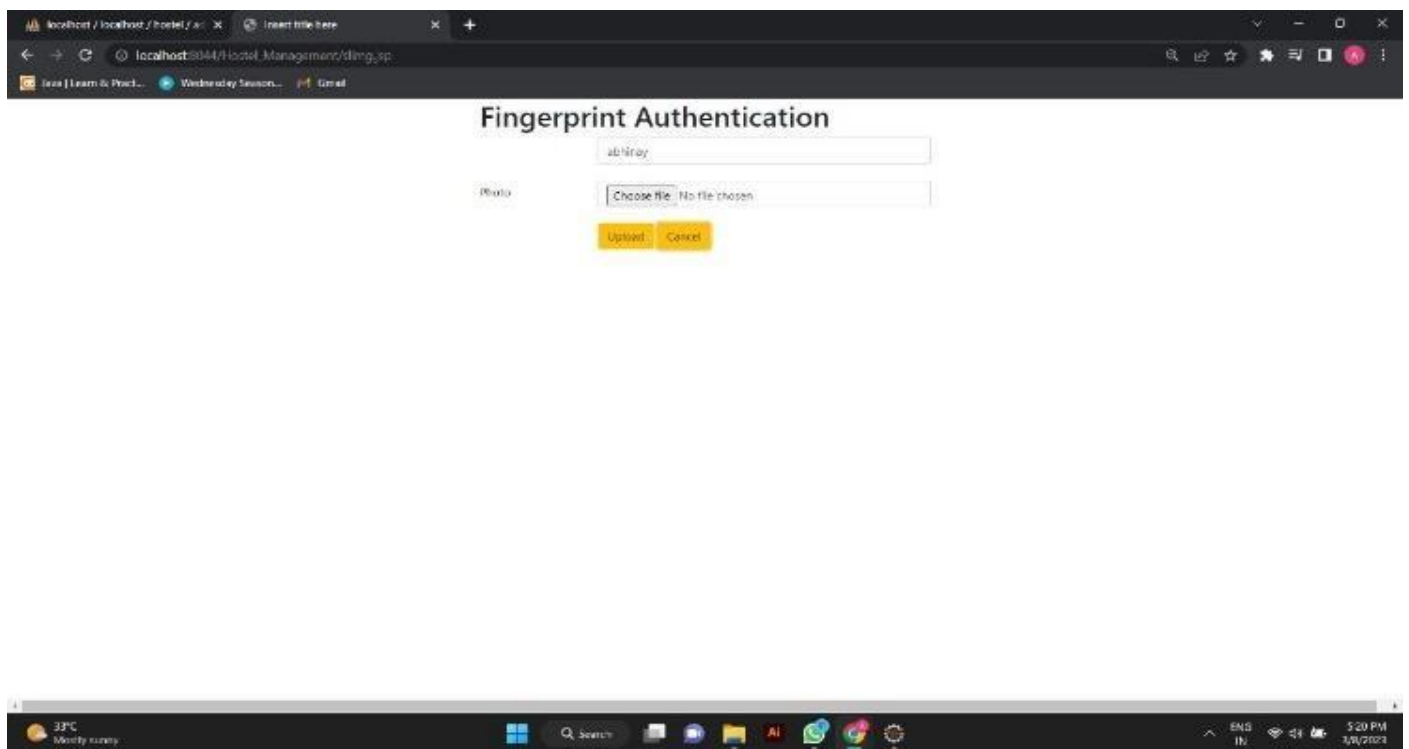


Fig 6 Finger Print Authentication

Fingerprint authentication is the act of verifying an individual's identity based on the picture of their finger print. Each student must give their original copy of finger print in the given space. If valid, the student can login and mark their attendance.

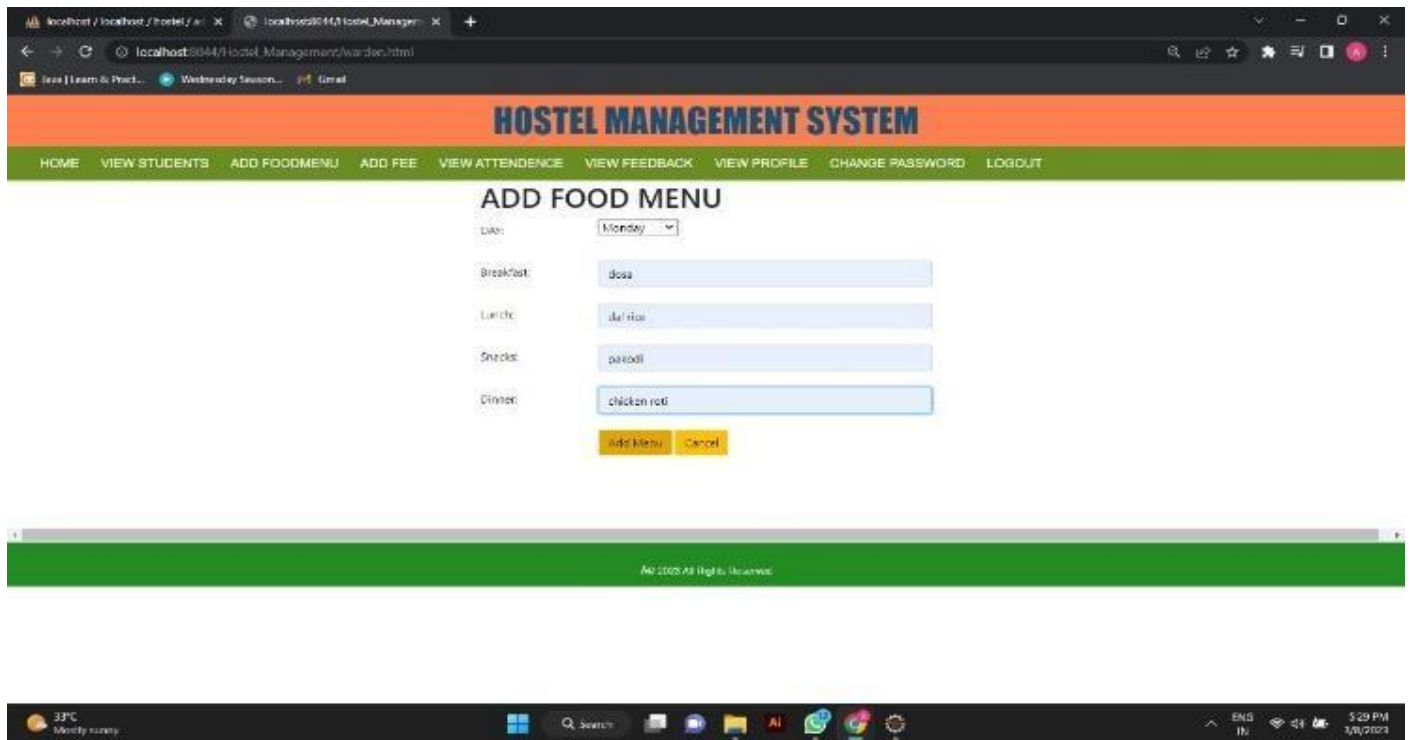


Fig 7 Food menu

Hostel food menu typically includes a variety of dishes that are served to the students staying at the hostel. The warden has the ability to add the food menu that is being served in all the three sessions of the day.

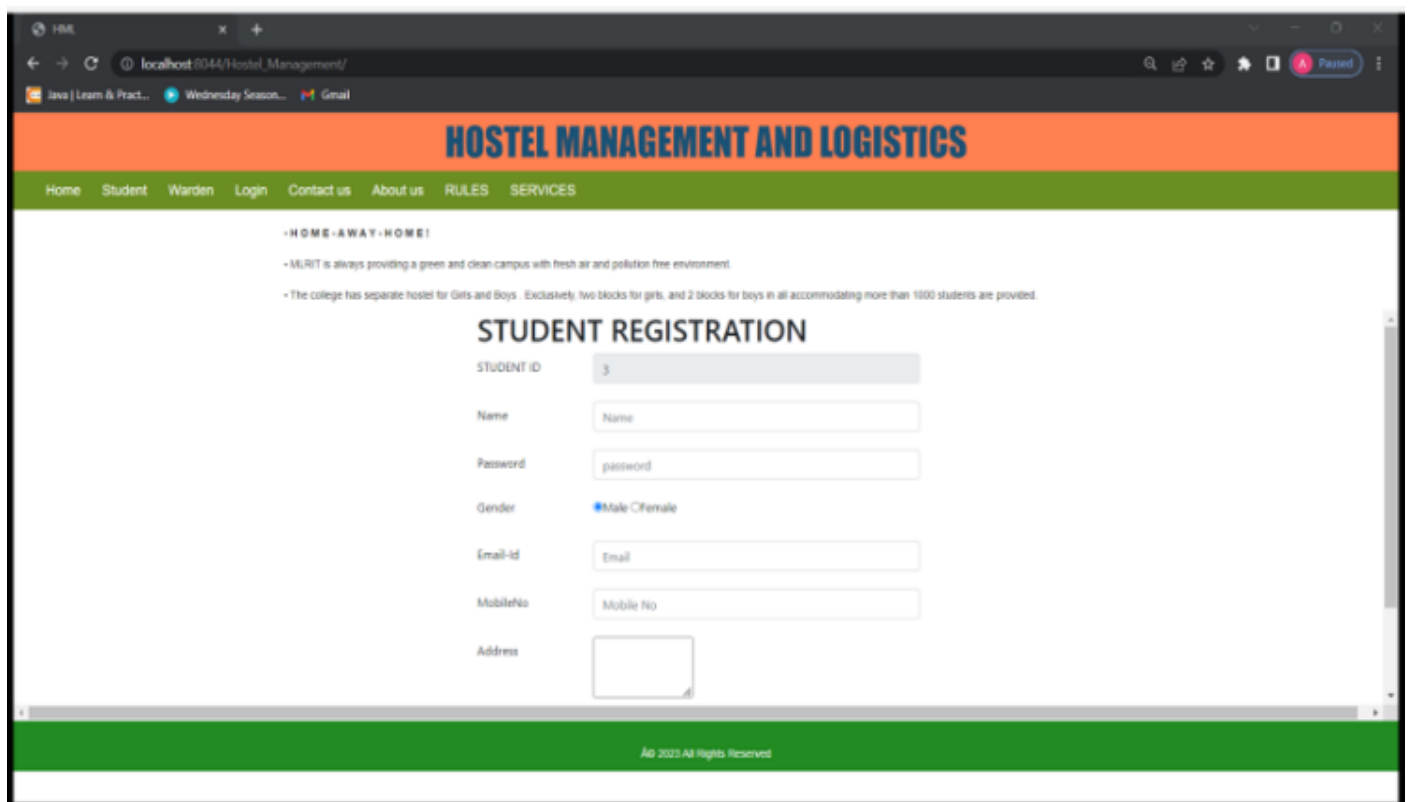


Fig 8 Student Registration Form

The process for student registration in a hostel portal may vary depending on the specific hostel and the type of portal being used. However, here are some general steps that may be involved in registering for a hostel portal. Visit the hostel website or portal and create an account by providing your personal details, such as name, email address, and contact information. Once you have created an account, log in to the portal using your login credentials.

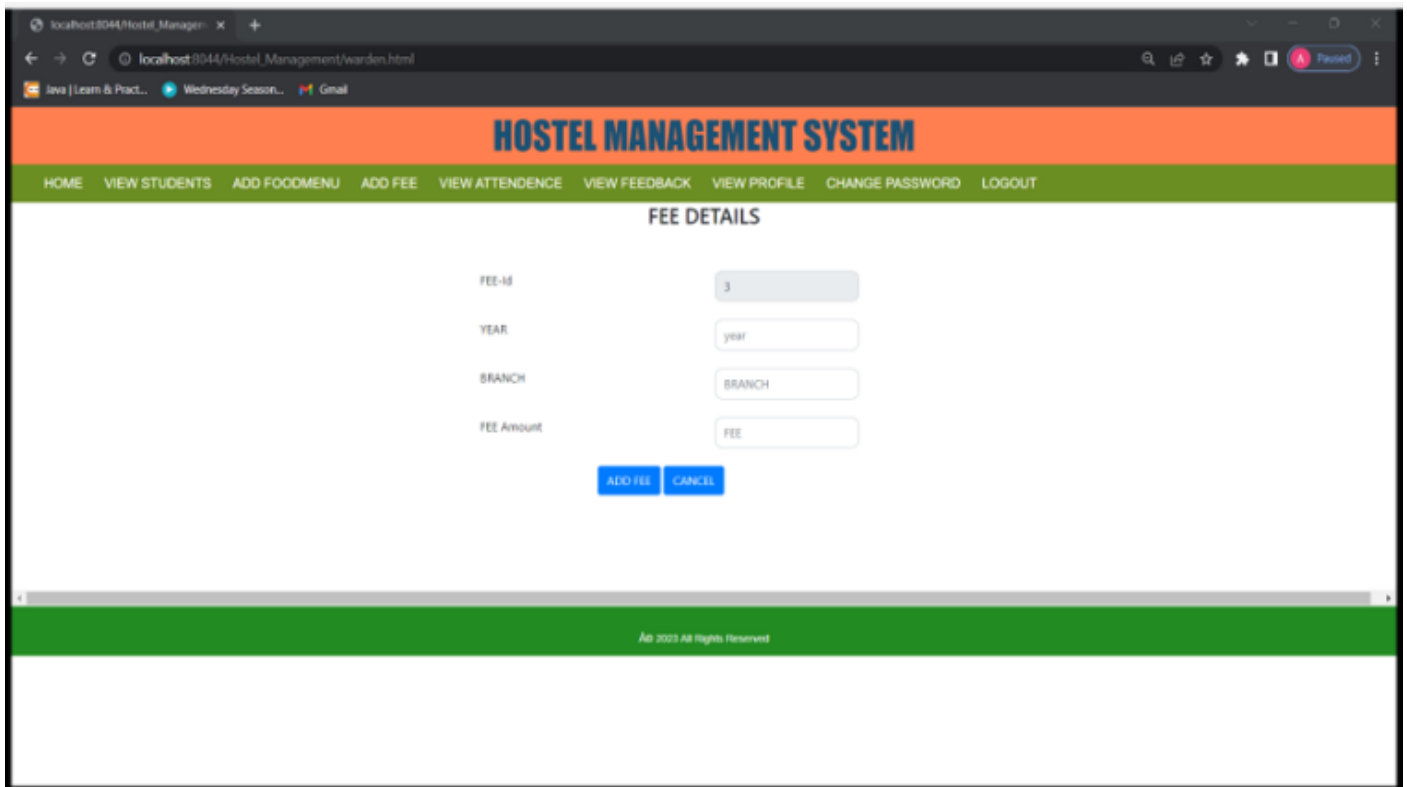


Fig 9 Fee Details Section

The above image is the fee payment page that enables the hostlers to pay their hostel fee, mess fee and other miscellaneous fee term wise. These are managed by the hosteladmin and monitored by the hostel warden.

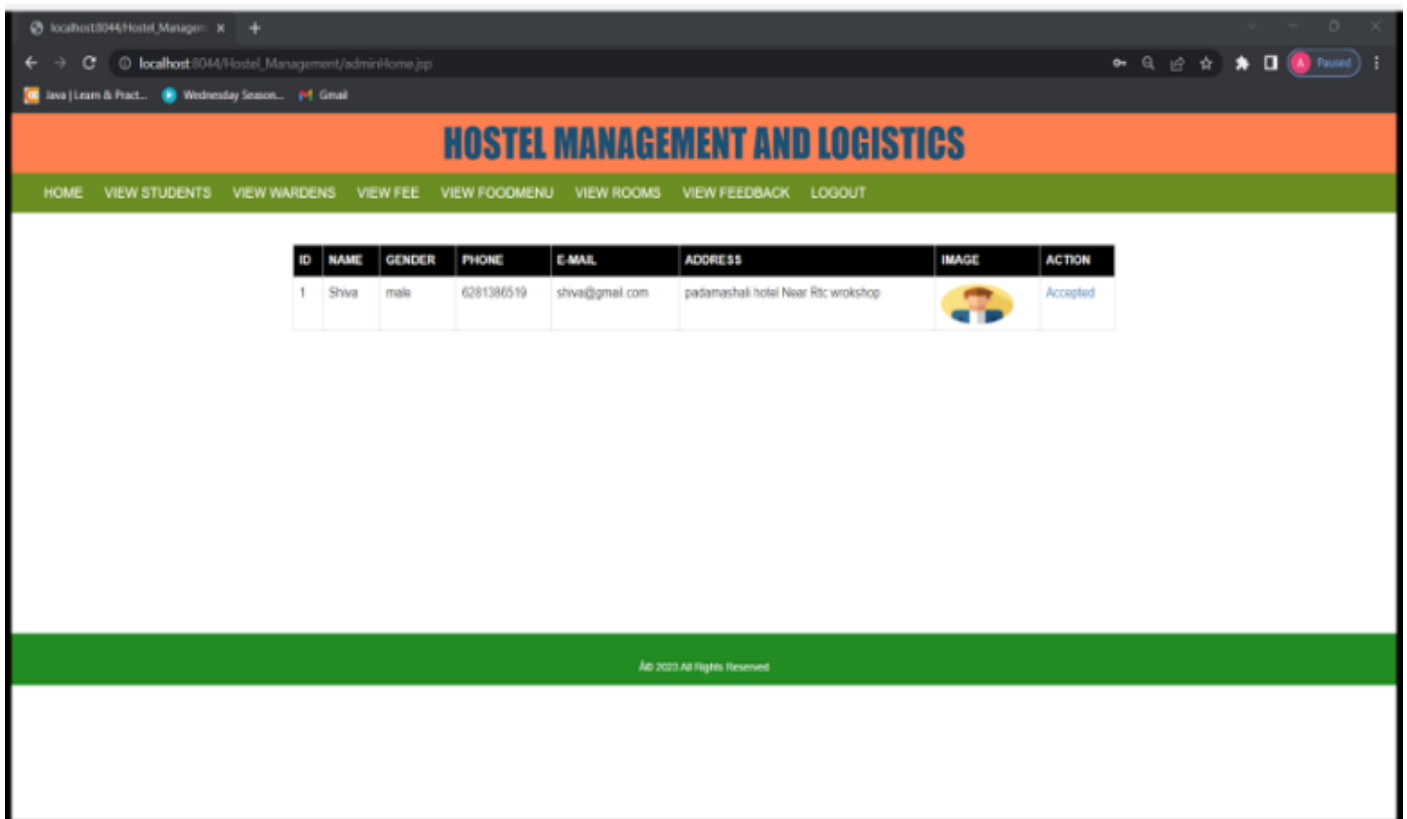


Fig 10 Registrations Acceptance page

The above page gives the information about the hostel adminto accept or reject the student’s registration. If the registrationis a valid one, he accepts the registration, else he will reject the registration

X. CONCLUSION AND FUTURE SCOPE

This project reduces the work of entering students' data manually. It enables student, admin and manager logins for mess and hostel, to check availability and allotment of hostel rooms. Track of student's attendance and inventory management system for mess, i.e., it enables the mess in-charge to know the amount of food to be prepared and update the number of groceries utilized.

XI. ACKNOWLEDGEMENT

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