ABSTRACT

(E-HOSTEL)

A hostel management system was designed to provide a computerized process that is stress free, reliable and quick through the use of Python computer programming language and PostgreSQL database application to both the students and the staff in charge of the registration and hostel management processes.HTML, CSS and Bootstrap would be at the front-end and provide the graphical user interface that relates with the user, while the PostgreSQL database will be at the back-end to handle the data storage process.As the name specifies “HOSTEL MANAGEMENT SYSTEM” is a software developed for managing various activities in the hostel. For the past few years the number of educational institutions are increasing rapidly. Thereby the number of hostels are also increasing for the accommodation of the students studying in this institution. And hence there is a lot of strain on the person who are running the hostel. This particular project deals with the problems on managing a hostel and avoids the problems which occur when carried manually.

Users in the Project

In this Hostel Management system, there are mainly five users

- ➢ Admin
- ➢ Warden
- ➢ Student
- ➢ Employees
- ➢ Parent (Guest included)

Modules

Admin(Mini project)

1.Register/Login
2.View – Students, Employees, Parents and Wardens
3.Invoice generation and downloading

4.Yearly Reports
5.Dashboard – To display notifications
6.Register Wardens and floors and assigns sub wardens to each floor.
7.Logout

Warden(Mini Project)

Wardens have the overall power of the system. Wardens are further divided into sub wardens. They can Add/Delete/Update the students.

1. Register/Login
2. Hostel Admissions (Add/View/Update)
3.Manage Incoming and Outgoing student database
4.Manuel allocation of tasks for employees(Main project)
5. Out Pass approval online
6.Leave approval for students and employees(Employee section in main project)
7. Complaint Message display box
8. Send SMS messages to parents when students checked IN and OUT
9.Mess cut automatic calculator
10.Remainder setting calender
10. Logout

Sub Warden(for each floor)

1)Register/Login
2)Room allotments to students based on each floor
3)Notifications to particular students allocated to each sub wardens/each floor
4)Logout

Student(Mini Project)

Students are the users who can easily avail the system functionalities .They can easily pay the fees, can request for leave and out pass online.

1. Login/register
2. Leave Apply
3. Room allotment status

4. Out Pass Apply + status viewing
5. Complaint Box
6. Emergency call redirect to wardens
7.Logout

Parent(Guest included)-Mini project

1.Register/Login
2.Room booking for shorter stay
3.Logout

Accounts(Mini Project)

1.Hostel fee and mess fee payment
2.Salary payment to the employees(Main Project)

Laundry (Main Project)

1.Register/Login
2.View status of laundry
3.SMS when laundry is OUT
4.Details of the laundry provided
5.Logout

Staff (Main Project)

1.Register/Login
2.View allocated works
3.Leave apply & status viewing
4.Complaint box
5.Logout

Attendence (Main Project)

1.Paperless attendance using face detection in ML

Existing System

The existing system is manual based and need lot of efforts and consume enough time. In the existing system, hostel room booking and the allotment process are done manually. It may lead to corruptions in the allocation process as well as hostel fee calculation. Out pass providing is done manually and it consumes a lot of time. The existing system does not deal with mess cut calculation. Incoming and outgoing student details are manually recording in ledgers. Emergency call redirects to wardens by hostel inmates.

DISADVANTAGES:

- More human power
- More strength and strain of manual labour needed
- Repetition of same procedure.
- Low security.
- Data redundancy.
- Difficulty to handle.
- Difficulty to update data. Record keeping is difficult.
- Backup data generation is difficult.

Proposed System

The proposed system is an 'All-in-one' system designed to manage all hostel activities like hostel admissions, room allotment to the students, Hostel and Mess fee payment, Online out pass providing, Manuel allocation of monthly tasks for staffs, Sends Alert messages and Notifications to parents and students, Paperless student attendance using face detection and also providing a space for posting complaints and many more.

Technologies Used

Front-end: HTML, CSS, Bootstrap, JavaScript

Back-end: Python, PostgreSQL

Framework: Django