



Scrum Master

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Hostel cloudsuite

20INMCA509 - Mini Project 2

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ABSTRACT

**Hostel Cloudsuite**

This project outlines the functionalities of a comprehensive hostel management system designed to streamline and automate various administrative, student, staff, and guardian-related tasks within a hostel environment. The system supports four user roles: Admin, Student, Staff (Middleman), and Parent/Guardian, each with tailored functionalities. Admin functionalities include user, room, fee, attendance, complaint, inventory, staff, and visitor management, along with notification systems, report generation, dashboards, analytics, and ensuring security and compliance. Student functionalities cover profile management, room allocation, fee payments, attendance viewing, complaint submission, mess management, visitor management, notifications, and mobile access. Staff functionalities include profile and duty management, attendance tracking, complaint resolution, inventory management, visitor management, mess management, and notifications. The Parent/Guardian role allows for profile access, fee payment tracking, attendance monitoring, complaint status viewing, and receiving notifications. The inward and outward registered movement of the hostel is monitored and verified using face recognition mechanism and these huge amounts of data of each day is appropriately stored in cloud. The project Utilizes advantages of cloud such as easy accessibility and storage of huge amount of data. The system aims to enhance efficiency, transparency, and user satisfaction by providing a robust platform for managing daily hostel operations and ensuring smooth communication between administrators, students, staff, and parents/guardians.

Techniques: Django, JavaScript, Jquery, CSS, HTML

Modules

* Admin
* Student
* Staff
* Parent

ADMIN

* Login/Registration
* Manage Different Users
* Allocate and deallocate rooms
* Management of fees
* Manage staff and student attendance
* Managing complaints
* Managing inventory and supplies
* Managing visitor Logs
* Permit outings and store the outing details

**Student**

* LOGIN/Logout
* Profile management
* View and request room changes
* Make fee payment
* View Attendance
* Complaint Submission
* View meal plan and choose meal preference
* View visitor history
* View notifications
* Request for outing

**Staff**

* LOGIN/Logout
* Profile management
* View and Manage schedules
* Record and view Attendance
* Update Complaint status
* Manage inventory
* Track register entries
* Assist in Meal planning
* Receive notifications on duty changes

**Parent**

* View personal and academic information
* View fee payment status
* View student attendance
* View complaint status given by student
* Receive Notifications

**To enhance the capability of the project various AI and ML functionalities have been integrated. They are the following:**

1) **Advanced Room Management**:

* **Room Inspection Reports**: Allow staff to conduct and record room inspections, tracking the condition and maintenance needs of each room.
* **Automated Allocation**: Implement algorithms to automatically allocate rooms based on preferences, availability, and specific criteria (e.g., gender, year of study).

2) **Enhanced Fee Management**:

* **Multiple Payment Methods**: Support various payment methods, including credit/debit cards, bank transfers, and digital wallets.
* **Automated Payment Reminders**: Send automated reminders to students and parents about upcoming or overdue payments.
* **Financial Aid Management**: Manage scholarships, grants, and other financial aid options for students.

3) **Advanced Attendance Management**:

* **Biometric Attendance**: Integrate biometric systems (e.g., fingerprint or facial recognition) to ensure accurate attendance tracking.
* **Real-Time Attendance Alerts**: Send real-time alerts to parents or guardians when a student misses classes or activities.

**4) Inventory Management Enhancements**:

* **Barcode/QR Code Scanning**: Use barcode or QR code scanning for quick and accurate inventory management.
* **Automated Reordering**: Set up automated reordering of supplies when inventory levels fall below a certain threshold.

**5) Recommendation System**

* Implement a recommendation system that suggests meals based on their previous menu history, browsing behaviors and preferences. This help the students discover menus they like**.**

**6)** **Chabot**

* Integrating a Chabot enhances user experience by providing 24/7 assistance with reservations, check-ins, and check-outs. It offers instant answers to common queries, resolves issues promptly, and handles housekeeping requests efficiently.

**The above proposed functionalities refers to the overall main project system out of which the admin, staff, student and parent module will be completed in the mini project**.