

Problem Statement

Overview

The Hostel Management System is developed to optimize the organization and supervision of student accommodations within college hostels. Its purpose is to automate key processes such as room allocation, visitor logging, tracking student movements, handling complaints, and managing hostel staff responsibilities across multiple hostels.

System Components and Features

1. Hostel and Room Allocation

- Hostel information is maintained in a centralized **Hostel Table**, capturing details like hostel names, whether they are air-conditioned (**Is_AC**), and available room types.
- Individual room data resides in the **Room Table**, recording student occupancy levels along with maintenance history, including the most recent cleaning and insecticide spraying.

2. Student Records

- Core student information—such as name, age, academic program, and admission category (e.g., DASA, Outside Delhi)—is stored in the **Student Table**.
- Each student record links to their assigned room and hostel for seamless allocation tracking.

3. Hostel-Specific Student Subtypes

- Subtype tables capture extra data for students in specific hostels:
 - **Alaknanda Students**: Additional details include nationality and prior residency status.
 - **Kaveri Students**: Tracks CGPA and whether the student resided in Kaveri previously.
 - **Saraswati Students**: Simply logs whether the student lived in Saraswati the year before.

4. Visitor Management

- The **Visitor Table** maintains logs of individuals visiting students, including names, relationship to the student, and visit dates.
- This facilitates regulation of authorized visitors—such as family members or maintenance personnel—to enhance hostel security.

5. **Student In-Time Tracking**

- The **In Table** documents when students return to the hostel premises, ensuring accurate logging of entry times.

6. **Student Out-Time Tracking**

- The **Out Table** tracks student departures from the hostel, recording destination addresses and the intended duration of their absence for monitoring purposes.

7. **Staff Administration**

- The **Staff Table** manages information on hostel staff, covering their contact details, assigned roles, work shifts, salary, and hostel postings.

8. **Parent and Guardian Information**

- A dedicated **Parent/Guardian Table** captures essential details such as name, relation to the student, and contact numbers, primarily for emergency use.

9. **Complaint Resolution System**

- Through the **Complaint Table**, students can report issues like maintenance failures or hygiene concerns (e.g., plumbing, electricity, mess, or cleaning).
- Complaints are assigned to relevant staff for follow-up, and the system monitors progress with timestamps for filing and resolution.