Problem Statement

Introduction

The Hostel Management System is designed to streamline the management and administration of student accommodations in a college hostel environment. This system aims to manage various hostels efficiently by automating processes like student allocation to rooms, handling visitor logs, in/out timings, complaints, and staff responsibilities.

Entities and Functionalities

1. **Hostel and Room Assignment**
   - Hostels are managed through the **Hostel Table**, which tracks the names of hostels, whether they are air-conditioned (**Is_AC**), and the types of rooms available.
   - The **Room Table** is used to track individual rooms within hostels, including the number of students currently occupying each room and maintenance details like the last cleaning and insect repellent spray dates.
2. **Student Information Management**
   - Students are stored in a central **Student Table**, which tracks general student details like name, age, program, and category (such as DASA, Outside Delhi, etc.).
   - Room assignment is recorded in the student's record, linking them to a room and hostel.
3. **Specialized Student Records**
   - There are subtype tables for students in specific hostels:
     - **Alaknanda_Student Table**: Captures details specific to students residing in the Alaknanda hostel, including the student's country and previous residency in the hostel.
     - **Kaveri_Student Table**: Captures the CGPA of students and whether they stayed in Kaveri the previous year.
     - **Saraswati_Student Table**: Tracks only whether the student stayed in Saraswati the previous year.
4. **Visitor Tracking**
   - The **Visitor Table** keeps track of visitors for each student. The relationship between students and visitors is tracked with details like visitor name, relation to the student and visit date.
   - This allows wardens and caretakers to ensure that only authorized visitors (like parents, electricians, etc.) are entering the hostel premises.
5. **In Table**
   - The system maintains an **In Table** to track the movements of students. It records when a student returns.
6. **Out Table**
   - The system maintains an **Out Table** to track the movements of students. It records when a student leaves the hostel.

- The system also records the address the student is visiting and the number of nights they plan to be away, providing a comprehensive log for security purposes.

7. **Staff Management**
   - Staff members are managed via the **Staff Table**. This table tracks staff members' contact information, role, shift details, salary, and hostel association.

8. **Parent/Guardian Information**
   - Each student can have a parent or guardian, and their details are recorded in the **Parent/Guardian Table**.
   - It tracks the guardian's name, relation to the student, and contact information for emergency or general correspondence purposes.

9. **Complaint Management**
   - A critical aspect of the system is the **Complaint Table**, where students can file complaints about issues such as plumbing, electricity, cleaning, or mess problems.
   - Each complaint is assigned to a staff member for resolution, and the system tracks the status of the complaint, from filing to resolution, with dates for when the complaint was filed and resolved.