Database Design Documentation

The Medical Records Management System is designed to manage and streamline the various aspects of a healthcare facility, including patients, doctors, nurses, medical records, prescriptions, medications, appointments, billing, staff, and departments. Below are the requirements and relationships for the system.

Requirements:

Patients:

- every patient has a `patient_id`, `first_name`, `last_name`, `date_of_birth`, `address`, `phone`, and `email`.

Doctors:

- every doctor has a `doctor_id`, `first_name`, `last_name`, `specialization`, `email`, `phone`, `age`, and `department_id`.

Nurses:

- every nurse has a `nurse_id`, `first_name`, `last_name`, `phone`, `email`, `age`.

Medications:

- every medication has a `med_id`, `med_name`, `description`, `side_effects`, and `dosage`.

Prescriptions:

- every prescription has a `prescription_id`, `pre_dosage`, `start_date`, `frequency`, `end_date`, and `doctor_id`.

Appointments:

- every appointment has an `appointment_id`, `appointment_date`, `status`, `doctor_id`, and `patient_id`.

Billing:

- every billing record has a `bill_id`, `amount`, `bill_date`, `status`, and `patient_id`.

Rooms:

- every room has a `room_id`, `room_number`, `room_type`, and `department_id`.

Departments:

- every department has a `department_id`, `department_name`, and `location`.

Staff:

- every staff member has a `staff_id`, `first_name`, `last_name`, `role`, `email`, `phone`, and `department_id`

Relationships:

1. patient-Doctor Relationships:

- patient can be treated by multiple doctors (M relationship).
- doctor can treat multiple patients (M relationship).

2. patient-Medical Record Relationships:

- patient can have multiple medical records (M relationship).
- every medical record is associated with one patient (1 relationship).

3. doctor-Medical Record Relationships:

- doctor can have multiple medical records (M relationship).
- every medical record is associated with one doctor (1 relationship).

4. prescription-Medication Relationships:

- prescription can include multiple medications (M relationship).
- every medication can be part of multiple prescriptions (M relationship).

5. patient-Billing Relationships:

- patient can have multiple billing records (M relationship).
- every billing record is associated with one patient (1 relationship).

6. appointment Relationships:

- patient can have multiple appointments (M relationship).
- doctor can have multiple appointments (M relationship).

7. room-Nurse Relationships:

- nurse can be assigned to multiple rooms (M relationship).
- room can have multiple nurses assigned (M relationship).

8. department Relationships:

- department can include multiple doctors (M relationship).
- department can include multiple staff members (M relationship).
- department can have multiple rooms (M relationship).