Table: Patients

Description: Contains records of all patients admitted or treated at the hospital.

Columns:

- patient\_id (INTEGER): Unique identifier for each patient.

- first\_name (VARCHAR): Patient's first name.

- last\_name (VARCHAR): Patient's last name.

- gender (CHAR): Patient's gender (M/F/O).

- date\_of\_birth (DATE): Date of birth of the patient.

- phone\_number (VARCHAR): Contact number.

- address (TEXT): Full address of the patient.

- registration\_date (DATETIME): Date and time when the patient was registered.

Primary Key: patient\_id

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Table: Doctors

Description: Information about doctors employed by the hospital.

Columns:

- doctor\_id (INTEGER): Unique ID for each doctor.

- first\_name (VARCHAR): Doctor's first name.

- last\_name (VARCHAR): Doctor's last name.

- specialty (VARCHAR): Area of medical expertise.

- phone\_number (VARCHAR): Contact number.

- email (VARCHAR): Professional email address.

Primary Key: doctor\_id

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Table: Appointments

Description: Stores appointment records between patients and doctors.

Columns:

- appointment\_id (INTEGER): Unique appointment ID.

- patient\_id (INTEGER): Foreign key to Patients table.

- doctor\_id (INTEGER): Foreign key to Doctors table.

- appointment\_date (DATETIME): Scheduled date and time of the appointment.

- status (VARCHAR): Status of appointment (Scheduled, Completed, Cancelled).

Primary Key: appointment\_id

Foreign Keys:

- patient\_id references Patients(patient\_id)

- doctor\_id references Doctors(doctor\_id)

Relationships:

- Appointments has a many-to-one relationship with Patients via patient\_id.

- Appointments has a many-to-one relationship with Doctors via doctor\_id.

Example Query:

SELECT a.appointment\_date, p.first\_name, d.last\_name, d.specialty

FROM Appointments a

JOIN Patients p ON a.patient\_id = p.patient\_id

JOIN Doctors d ON a.doctor\_id = d.doctor\_id

WHERE a.status = 'Scheduled';

---

Table: MedicalRecords

Description: Stores diagnoses, treatments, and notes for each patient visit.

Columns:

- record\_id (INTEGER): Unique medical record ID.

- patient\_id (INTEGER): Foreign key to Patients table.

- doctor\_id (INTEGER): Foreign key to Doctors table.

- diagnosis (TEXT): Summary of the medical issue.

- treatment (TEXT): Treatment details.

- visit\_date (DATETIME): Date and time of patient visit.

Primary Key: record\_id

Foreign Keys:

- patient\_id references Patients(patient\_id)

- doctor\_id references Doctors(doctor\_id)

Relationships:

- MedicalRecords has a many-to-one relationship with Patients via patient\_id.

- MedicalRecords has a many-to-one relationship with Doctors via doctor\_id.

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Table: Rooms

Description: Hospital room information and assignments.

Columns:

- room\_id (INTEGER): Unique ID for the room.

- room\_number (VARCHAR): Physical room number.

- type (VARCHAR): Type of room (ICU, General, Private).

- status (VARCHAR): Occupancy status (Available, Occupied).

Primary Key: room\_id

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Table: Admissions

Description: Records of patients admitted to hospital rooms.

Columns:

- admission\_id (INTEGER): Unique admission record ID.

- patient\_id (INTEGER): Foreign key to Patients table.

- room\_id (INTEGER): Foreign key to Rooms table.

- admission\_date (DATETIME): Date of admission.

- discharge\_date (DATETIME): Date of discharge (nullable).

Primary Key: admission\_id

Foreign Keys:

- patient\_id references Patients(patient\_id)

- room\_id references Rooms(room\_id)

Relationships:

- Admissions links Patients with Rooms through admissions.

- One patient can have many admissions over time.

Example Query:

SELECT p.first\_name, r.room\_number, a.admission\_date, a.discharge\_date

FROM Admissions a

JOIN Patients p ON a.patient\_id = p.patient\_id

JOIN Rooms r ON a.room\_id = r.room\_id

WHERE a.discharge\_date IS NULL;

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