

MediSched – Healthcare Appointment System

Mapping Explanation

1. User Table

- Contains common attributes for all users: Patient, Doctor, Admin.
- Role field distinguishes between types of users.

2. Doctor Table

- Subclass of User.
- DoctorID is a foreign key referencing UserID.

3. Patient Table

- Subclass of User.
- PatientID is a foreign key referencing UserID.

4. TimeSlot Table

- Represents available time slots for doctors.
- Linked to Doctor table through DoctorID.

5. Appointment Table

- Connects Patients and Doctors through booked time slots.
- Also linked to Admin through AdminID.
- SlotID is unique to prevent double booking.

6. Prescription Table

- Stores prescriptions issued during appointments.
- Linked to Doctor, Patient, and Appointment.

ISA Hierarchy:

- User → Patient and Doctor (Role field identifies Admin).

Relationships:

- A Patient books many Appointments (1:N).
- A Doctor has many TimeSlots and Appointments (1:N).
- A Doctor issues many Prescriptions (1:N).
- Each Appointment is managed by one Admin (N:1).

This mapping keeps the design simple and matches the ER model directly.