EDGE PROGRAM PROJECT

Database Schema

The schema will include the following tables:

1. **Patients**
2. **Doctors**
3. **Medications**
4. **Prescriptions**
5. **Pharmacies**
6. **Pharmacists**
7. **Inventory**
8. **Sales**

Tables

1. **Patients**
    - `patient_id` (Primary Key)
    - `first_name`
    - `last_name`
    - `dob` (date of birth)
    - `address`
    - `phone`
    - `email`
2. **Doctors**
    - `doctor_id` (Primary Key)
    - `first_name`
    - `last_name`
    - `specialization`
    - `phone`

    - email
3. **Medications**
    - medication_id (Primary Key)
    - name
    - description
    - manufacturer
    - price
4. **Prescriptions**
    - prescription_id (Primary Key)
    - patient_id (Foreign Key to Patients)
    - doctor_id (Foreign Key to Doctors)
    - date_prescribed
    - total_cost
5. **Pharmacies**
    - pharmacy_id (Primary Key)
    - name
    - location
    - phone
    - email
6. **Pharmacists**
    - pharmacist_id (Primary Key)
    - first_name
    - last_name
    - pharmacy_id (Foreign Key to Pharmacies)
    - phone
    - email
7. **Inventory**
    - inventory_id (Primary Key)
    - pharmacy_id (Foreign Key to Pharmacies)
    - medication_id (Foreign Key to Medications)

    - `quantity`
    - `last_updated`
8. **Sales**
    - `sale_id` (Primary Key)
    - `prescription_id` (Foreign Key to Prescriptions)
    - `pharmacist_id` (Foreign Key to Pharmacists)
    - `date_sold`
    - `total_price`

ERD (Entity-Relationship Diagram)

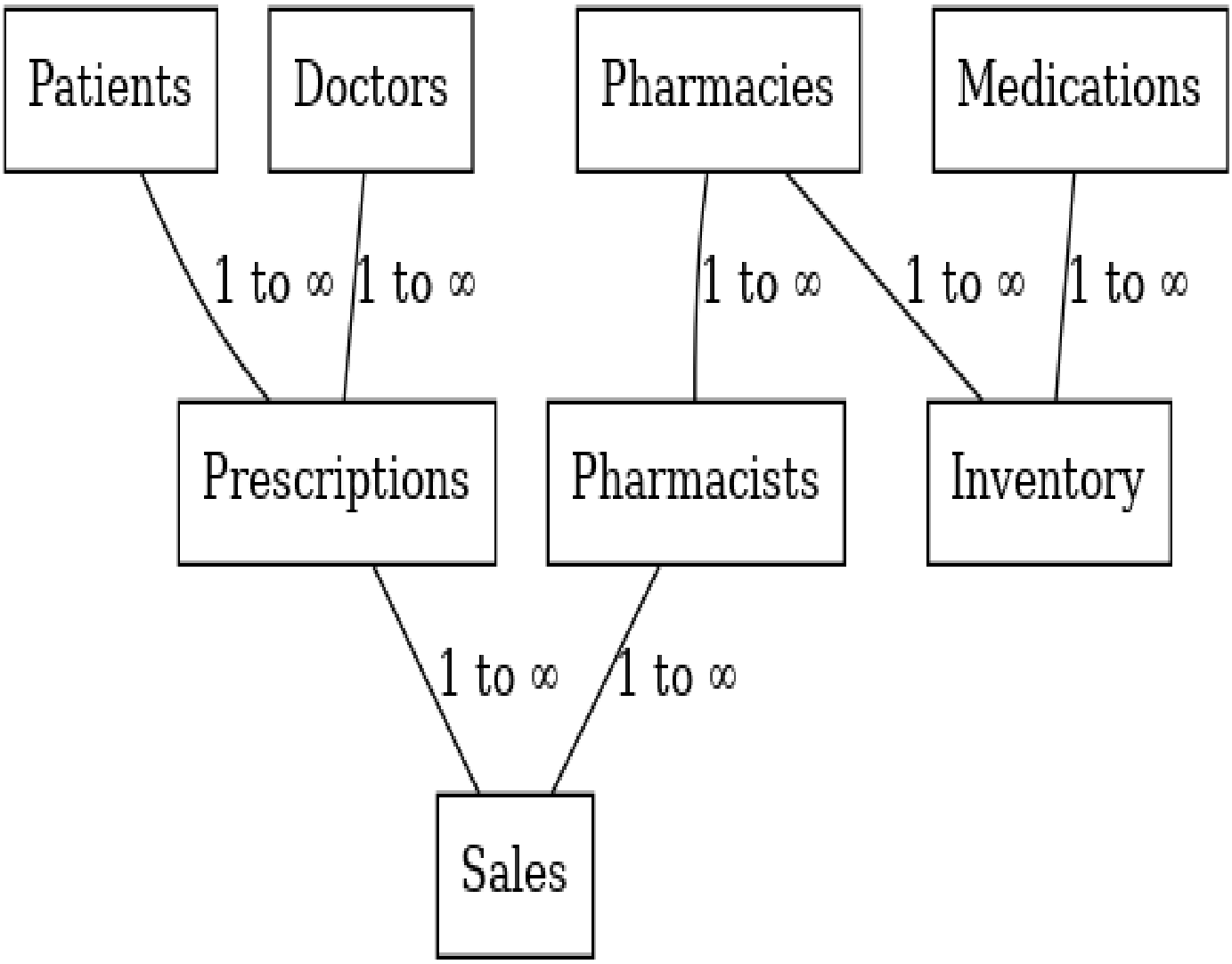
Creating an ERD diagram involves visualizing these tables and their relationships. Below is a textual description of the relationships, which can be translated into a graphical ERD using tools like Lucidchart, Microsoft Visio, or any other ERD software.

- Each **Patient** can have multiple **Prescriptions**.
- Each **Doctor** can write multiple **Prescriptions**.
- Each **Pharmacy** can have multiple **Pharmacists**.
- Each **Pharmacy** can have multiple **Medications** in their **Inventory**.
- Each **Prescription** can have multiple **Medications** (in a real-world scenario this would be implemented through a linking table, but for simplicity, we consider it directly).
- Each **Sale** involves one **Prescription** and one **Pharmacist**.

ERD Diagram

To visualize the ERD, you can use the above relationships and create the diagram in a tool like Lucidchart. Here is a simple textual representation that can guide you:

- **Patients** (1)---(∞) **Prescriptions**
- **Doctors** (1)---(∞) **Prescriptions**
- **Pharmacies** (1)---(∞) **Pharmacists**
- **Pharmacies** (1)---(∞) **Inventory**
- **Medications** (1)---(∞) **Inventory**
- **Prescriptions** (1)---(∞) **Sales**
- **Pharmacists** (1)---(∞) **Sales**


Patients
Doctors
Pharmacies
Medications
1 to ∞
1 to ∞
1 to ∞
1 to ∞
1 to ∞
Prescriptions
Pharmacists
Inventory
1 to ∞
1 to ∞
Sales