

In this assignment, you have to create an ER Diagram and list out the relationships between the three tables containing sample data shown below based on a few business rules.

Here are the business rules:

- The Patients table stores data for individual patients. Each row represents a unique patient.
- The Health_conditions table stores data for a unique disease/health condition. Each row is unique and condition cannot be repeated in this table. However, multiple patients can have the same health conditions.
- The Patient_Address table stores the address for each patient. Each address can belong to multiple patients e.g. People from a family will have the same address.

Based on the above business rules, create appropriate relationships between the tables shown below. You can create new tables (*to break any many to many relationships that may arise due to business rules*) or add new columns to the existing tables to establish the relationships. Please ensure that each table has a unique primary key that is not repeating and relationships are established by creating a Primary Key - Foreign key relationship.

| Patients | | |
|------------|-------------------|--------------------|
| Patient_Id | Patient_Last_Name | Patient_First_Name |
| 1 | Smith | John |
| 2 | Smith | Jane |
| 3 | Vandelay | Art |
| 4 | Dover | Ben |

| Health_Conditions | |
|-------------------|------------------------------|
| Condition_Id | Condition |
| 1 | Right Leg fracture |
| 2 | COPD |
| 3 | Aneurysm |
| 4 | Vein Thrombosis |
| 5 | Upper Respiratory Infections |
| 6 | Headache |
| 7 | Confusion |

| Patient_Address |
|-----------------|
|-----------------|

| Address_Id | Street_Address | City | Province |
|------------|-------------------|-------------|----------|
| 1 | 2449 Algoma St | Thunder Bay | ONTARIO |
| 2 | 327 Avenue Rd | North york | ONTARIO |
| 3 | 222 Hardwood Road | Etobicoke | ONTARIO |
| 4 | 11 Maven Avenue | Toronto | ONTARIO |