Section 1: ER Modeling

| Patient | ⊩———————————○< | Patient Surgeries |

| Patient | ⊩———————————○< | Patient Prescriptions |

| Patient | >———————————< | ICD Codes/Descriptions |

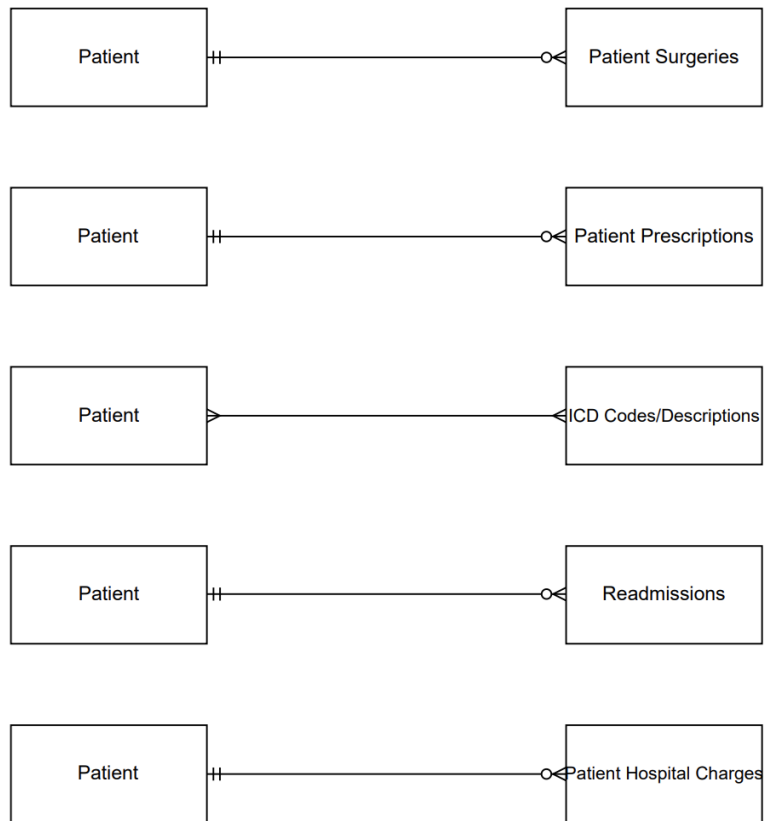| Patient | ⊩———————————○< | Readmissions |

| Patient | ⊩———————————○< | Patient Hospital Charges |

Section 2: Normalization

This table is a property/house inspection table. It has things like propertyno, property_address, inspection_time, etc. The table below is already in 1NF, so you do not have to put it in 1NF. Given the 1NF table, place the correct columns in the respective tables below to achieve 2NF. Remember, to get to 2NF remove any partial dependency from the above table.

Property_Info(PropertyNo, Property_Address)
Property_Inspection(Inspection_Date, InspectorID, PropertyNo)
Inspectors(InspectorID, Inspector_Name)

Section 3: SQL

1. First build the table LIFE_EXPECTANCY and make sure you have the correct data types.

```
CREATE TABLE LIFE_EXPECTANCY (
ID INTEGER PRIMARY KEY,
COUNTRY VARCHAR(60),
YEAR INTEGER,
MALE_LE_BIRTH numeric(5,2),
FEMALE_LE_BIRTH numeric(5,2),
MALE_LE_AGE60 numeric(5,2),
FEMALE_LE_AGE60 numeric(5,2),
MALE_HALE_BIRTH numeric(5,2),
FEMALE_HALE_BIRTH numeric(5,2)
);
```

2. Load using bulk insert

	ID	COUNTRY	YEAR	MALE_LE_BIRTH	FEMALE_LE_BIRTH	MALE_LE_AGE60	FEMALE_LE_AGE60	MALE_HALE_BIRTH	FEMALE_HALE_BIRTH
1	1	Afghanistan	2019	63.30	63.20	15.40	15.10	54.70	53.20
2	2	Afghanistan	2015	61.00	62.30	15.70	15.50	52.80	52.40
3	3	Afghanistan	2010	59.60	60.30	15.10	15.20	51.50	50.70
4	4	Afghanistan	2000	54.60	55.40	13.60	14.20	46.90	46.60
5	5	Albania	2019	76.30	79.90	20.20	21.90	68.00	70.30
6	6	Albania	2015	76.10	79.70	20.10	22.20	68.00	70.10
7	7	Albania	2010	74.20	78.30	19.90	22.60	66.30	68.90
8	8	Albania	2000	70.70	76.90	17.10	21.20	63.10	67.70
9	9	Algeria	2019	76.20	78.10	21.50	22.60	66.70	66.10
10	10	Algeria	2015	75.60	77.50	21.30	22.30	66.30	65.70

For the questions below write the SQL. In addition to your SQL code, I want to see screenshots for the following questions below: a, b, c, e, f.

3a. What is the female life expectancy(female_le_birth) for the USA in 2019?

	FEMALE_LE_BIRTH	COUNTRY	YEAR
1	80.70	United States of America	2019

3b. What is the average male life expectancy (male_le_birth) in the year 2000? Hint: no need for a group by.

	MEAN_MALE_LE_BIRTH_2000
1	64.296174

3c. What is the average female life expectancy by year?

	MEAN_FEMALE_LE_BIRTH	YEAR
1	74.996174	2019
2	73.987978	2015
3	72.495628	2010
4	69.291256	2000
5	0.000000	1920

3d. How many different years are there by country? HINT: COUNT years and group by country.

	DIFFERENT_YEAR_BY_COUNTRY
1	4
2	4
3	4
4	4
5	4
6	4
7	4
8	4
9	4
10	4

3e. What is the average male healthy life expectancy at birth (male_hale_birth) for Canada?

	MEAN_MALE_HALE_BIRTH_CANADA
1	55.780000

3f. Are there any countries with the word "Tome" in the name?

	COUNTRY
1	Sao Tome and Principe
2	Sao Tome and Principe
3	Sao Tome and Principe
4	Sao Tome and Principe

3g. What is the average female life expectancy at age 60 (female_le_age60)?

	MEAN_FEMALE_LE_AGE60
1	20.485402

3h. What is the maximum male life expectancies (male_le_birth) for Ecuador by year?

	MAX_MALE_LE_BIRTH_ECUADOR	COUNTRY	YEAR
1	71.90	Ecuador	2000
2	72.30	Ecuador	2010
3	74.90	Ecuador	2015
4	76.40	Ecuador	2019

3i. What is the average male life expectancies (male_le_birth) for Ecuador?

	MEAN_MALE_LE_BIRTH_ECUADOR
1	73.875000