CREATE DATABASE hospital;

USE hospital;

SELECT \* FROM admissions;

SELECT \* FROM doctors;

SELECT \* FROM patients;

SELECT \* FROM province\_names;

/\* 1. Show first name, last name, and gender of patients who's gender is 'M' \*/

SELECT first\_name, last\_name, gender

FROM patients

WHERE gender = "M";

/\* 2. Show first name and last name of patients who does not have allergies. (null) \*/

SELECT first\_name, last\_name

FROM patients

WHERE allergies IS NULL;

/\*3. Show first name of patients that start with the letter 'C'\*/

SELECT first\_name

FROM patients

WHERE first\_name LIKE "c%";

/\*4. Show first name and last name of patients that weight within the range of 100 to 120 (inclusive)\*/

SELECT first\_name,last\_name

FROM patients

WHERE weight BETWEEN 100 AND 120;

/\*5. Update the patients table for the allergies column. If the patient's allergies is null then replace it with 'NKA'\*/

UPDATE patients SET allergies = "NKA"

WHERE allergies IS NULL;

/\*6. Show first name and last name concatenated into one column to show their full name.\*/

SELECT first\_name, last\_name, CONCAT(first\_name, ' ', last\_name) AS full\_name

FROM patients;

/\*7. Show first name, last name, and the full province name of each patient.\*/

SELECT \* FROM patients;

SELECT \* FROM province\_names;

SELECT p.first\_name, p.last\_name, pn.names

FROM patients as p

LEFT JOIN province\_names as pn ON p.province\_id = pn.province\_id;

/\*8. Show how many patients have a birth\_date with 2010 as the birth year.\*/

SELECT count(birth\_date)

FROM patients

WHERE birth\_date LIKE "2010%";

/\*9. Show the first\_name, last\_name, and height of the patient with the greatest height.\*/

SELECT first\_name, last\_name, height

FROM patients

WHERE height = (SELECT max(height) FROM patients);

/\*10. Show the total number of admissions\*/

SELECT count(admission\_date) AS total\_admn

FROM admissions;

/\*11. Show all the columns from admissions where the patient was admitted and discharged on the same day.\*/

SELECT \* FROM admissions

WHERE admission\_date = discharge\_date;

/\*12. Based on the cities that our patients live in, show unique cities that are in province\_id 'NS'?\*/

SELECT DISTINCT city

FROM patients

WHERE province\_id = "NY";

/\*13. Write a query to find the first\_name, last name and birth date of patients who have height more than 160 and weight more than 70\*/

SELECT first\_name, last\_name, birth\_date

FROM patients

WHERE height>160 and weight>70;

/\*14. Write a query to find list of patients first\_name, last\_name, and allergies from Hamilton where allergies are not null\*/

SELECT first\_name, last\_name, allergies

FROM patients

WHERE city = "Honolulu" AND allergies IS NOT NULL;

/\*15. Based on cities where our patient lives in, write a query to display the list of unique city starting with a vowel (a, e, i, o, u). Show the result order in ascending by city.\*/

SELECT DISTINCT city

FROM patients

WHERE city LIKE "a%" OR city LIKE "e%" OR city LIKE "i%" OR city LIKE "o%" OR city LIKE "u%"

ORDER BY city ASC;

/\*16. Show unique birth years from patients and order them by ascending.\*/

SELECT DISTINCT YEAR(birth\_date) AS birth\_year

FROM patients

ORDER BY YEAR(birth\_date) ASC;

/\*17. Show unique first names from the patients table which only occurs once in the list.

For example, if two or more people are named 'John' in the first\_name column then don't include their name in the output list.

If only 1 person is named 'Leo' then include them in the output\*/

SELECT first\_name

FROM patients

GROUP BY first\_name

HAVING count(first\_name) =1;

/\*18. Show patient\_id and first\_name from patients where their first\_name start and ends with 's' and is at least 6 characters long.\*/

SELECT first\_name

FROM patients

WHERE first\_name LIKE "s\_\_\_%h";

/\*19. Show the total amount of male patients and the total amount of female patients in the patients table.

Display the two results in the same row.\*/

SELECT

(SELECT count(gender) FROM patients WHERE gender= 'M') AS male\_count,

(SELECT count(gender) FROM patients WHERE gender= 'F') AS female\_count;

/\*20. Show the total amount of male patients and the total amount of female patients in the patients table.

Display the two results in the same row.\*/

SELECT

(SELECT count(gender) FROM patients WHERE gender= 'M') AS male\_count,

(SELECT count(gender) FROM patients WHERE gender= 'F') AS female\_count;

/\*21. Show the city and the total number of patients in the city. Order from most to least patients and then by city name ascending.\*/

SELECT city, COUNT(\*) AS count\_of\_patients

FROM patients

GROUP BY city

ORDER BY count\_of\_patients DESC, city ASC;

/\*22. Show first name, last name and role of every person that is either patient or doctor. The roles are either "Patient" or "Doctor"\*/

SELECT p.first\_name,p.last\_name, ("Patient") AS role

FROM patients p

UNION

SELECT d.first\_name,d.last\_name, ("Doctor") AS role

FROM doctors d;

/\*23. Show all allergies ordered by popularity. Remove NULL values from query.\*/

SELECT DISTINCT allergies,count(\*) AS allergy\_count

FROM patients

WHERE allergies IS NOT NULL

GROUP BY allergies

ORDER BY allergy\_count DESC;

/\*24. Show all patient's first\_name, last\_name, and birth\_date who were born in the 1970s decade.

Sort the list starting from the earliest birth\_date.\*/

SELECT first\_name, last\_name, birth\_date

FROM patients

WHERE YEAR(birth\_date)<1980 AND YEAR(birth\_date)>=1970

ORDER BY birth\_date ASC;

/\*25. Show the province\_id(s), sum of height; where the total sum of its patient's height is greater than or equal to 7,000.\*/

SELECT DISTINCT province\_id, count(\*), sum(height) as sum\_of\_heights

FROM patients

GROUP BY province\_id

HAVING sum\_of\_heights>2000;

/\*26. Show first\_name, last\_name, and the total number of admissions attended for each doctor.

Every admission has been attended by a doctor.\*/

SELECT d.doctor\_id, d.first\_name, d.last\_name, count(a.admission\_date) as total\_admn

FROM doctors d

LEFT JOIN admissions a

ON d.doctor\_id = a.attending\_doctor\_id

GROUP BY a.attending\_doctor\_id, d.doctor\_id, d.first\_name, d.last\_name;

/\*27. For each doctor, display their id, full name, and the first and last admission date they attended.\*/

SELECT d.doctor\_id, concat(d.first\_name, " ",d.last\_name) as full\_name,

min(a.admission\_date) as first\_admn, max(a.admission\_date) as last\_admn

FROM doctors d

LEFT JOIN admissions a

ON d.doctor\_id = a.attending\_doctor\_id

GROUP BY d.doctor\_id, full\_name;

/\*28. Display the total amount of patients for each province. Order by descending.\*/

SELECT DISTINCT province\_id, count(\*) AS num\_of\_patients

FROM patients

GROUP BY province\_id

ORDER BY num\_of\_patients DESC;

/\*29. For every admission, display the patient's full name, their admission diagnosis, and their doctor's full name who diagnosed their problem.\*/

SELECT concat(p.first\_name, " ", p.last\_name) AS patient\_name, a.diagnosis , concat(d.first\_name, " ", d.last\_name) AS doctor\_name

FROM patients p

LEFT JOIN admissions a ON p.patient\_id = a.patient\_id

LEFT JOIN doctors d ON a.attending\_doctor\_id = d.doctor\_id;

/\*30. Show patient\_id, first\_name, last\_name, and attending doctor's specialty.

Show only the patients who has a diagnosis as 'Epilepsy' and the doctor's first name is 'Lisa'.Check patients, admissions, and doctors tables for required information.\*/

SELECT a.patient\_id, p.first\_name, p.last\_name, d.speciality

FROM admissions a

LEFT JOIN doctors d ON a.attending\_doctor\_id = d.doctor\_id

LEFT JOIN patients p ON a.patient\_id = p.patient\_id

WHERE a.diagnosis LIKE "%epi%" AND d.first\_name = "Lisa";

/\*31. All patients who have gone through admissions, can see their medical documents on our site.

Those patients are given a temporary password after their first admission. Show the patient\_id and temp\_password.\*/

/\*32. We need a breakdown for the total amount of admissions each doctor has started each year.

Show the doctor\_id, doctor\_full\_name, specialty, year, total\_admissions for that year.\*/

SELECT DISTINCT YEAR(a.admission\_date) as year, d.doctor\_id, CONCAT(d.first\_name," ",d.last\_name) AS full\_name, d.speciality

FROM doctors d

LEFT JOIN admissions a

ON doctor\_id = attending\_doctor\_id;