**-- 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.**

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 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 p.first\_name, p.last\_name, pn.province\_name

from patients as p

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(patient\_id) as Patients

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

order by height desc

limit 1;

-- or

select first\_name, last\_name, height

from patients

where height = ( select max(height)

from patients);

**-- 10. Show all columns for patients who have one of the following patient\_ids: 1,45,534,879,1000**

select \*

from patients

where patient\_id in (1,45,534,879,1000);

**-- 11. Show the total number of admissions**

select count(\*)

from admissions;

**-- 12. 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;

**-- 13. Show the total number of admissions for patient\_id 579.**

select count(\*) as patient

from admissions

where patient\_id = 579;

**-- 14. 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 = "NS";

**-- 15. 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;

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

select distinct year(birth\_date) as birth\_year

from patients

order by birth\_year;

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

select distinct first\_name

from patients

group by first\_name

having count(\*) = 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 patient\_id, first\_name

from patients

where first\_name like "s%\_\_\_\_%s" ;

**-- 19. Show patient\_id, first\_name, last\_name from patients whos diagnosis is 'Dementia'. Primary diagnosis is stored in the admissions table.**

select p.patient\_id, p.first\_name, p.last\_name

from patients as p

join admissions as a

on p.patient\_id = a.patient\_id

where diagnosis = "Dementia";

**-- 20. Display every patient's first\_name. Order the list by the length of each name and then by alphbetically.**

select first\_name

from patients

order by length(first\_name), first\_name;

**-- 21. 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

SUM(CASE WHEN gender = 'M' THEN 1 ELSE 0 END) AS Male\_Patients,

SUM(CASE WHEN gender = 'F' THEN 1 ELSE 0 END) AS Female\_Patients

FROM patients;

**-- 22. 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

SUM(CASE WHEN gender = 'M' THEN 1 ELSE 0 END) AS Male\_Patients,

SUM(CASE WHEN gender = 'F' THEN 1 ELSE 0 END) AS Female\_Patients

FROM patients;

**-- 23. Show patient\_id, diagnosis from admissions. Find patients admitted multiple times for the same diagnosis.**

select a1.patient\_id, a1.diagnosis

from admissions a1

join admissions a2

on a1.patient\_id = a2.patient\_id

And a1.diagnosis = a2. diagnosis

group by a1.patient\_id, a1.diagnosis

having count(\*)>1;

select patient\_id, diagnosis

from admissions

group by patient\_id, diagnosis

having count(\*) > 1;

**-- 24. 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(patient\_id) patient\_num

from patients

group by city

order by patient\_num desc, city asc;

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

SELECT first\_name, last\_name, 'Doctor' AS role

FROM doctors

UNION ALL

SELECT first\_name, last\_name, 'Patient' AS role

FROM patients;

**-- 26. Show all allergies ordered by popularity. Remove NULL values from query.**

select allergies, count(\*) as popularity

from patients

where allergies is not null

group by allergies

order by popularity desc;

**-- 27. 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) between 1970 and 1979

order by birth\_date;

**-- 28. We want to display each patient's full name in a single column. Their last\_name in all**

**-- upper letters must appear first, then first\_name in all lower case letters. Separate the**

**-- last\_name and first\_name with a comma. Order the list by the first\_name in decending order**

**-- EX: SMITH,jane**

select concat( upper(last\_name), ", ", lower(first\_name)) as full\_name

from patients

order by first\_name;

**-- 29. 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

province\_id,

sum(height) as total\_height

from patients

group by province\_id

having total\_height >= 7000;

**-- 30. Show the difference between the largest weight and smallest weight for patients with the last name 'Maroni'**

select

max(weight)-min(weight) as weight\_difference

from patients

where last\_name = "Maroni";

**-- 31. Show all of the days of the month (1-31) and how many admission\_dates occurred on that day. Sort by the day with most admissions to least admissions.**

select

day(admission\_date) as day\_of\_month,

count(admission\_date) as day\_count

from admissions

group by day\_of\_month

order by day\_count desc;

**-- 32. Show all of the patients grouped into weight groups. Show the total amount of patients in**

**-- each weight group. Order the list by the weight group decending. e.g. if they weight 100 to**

**-- 109 they are placed in the 100 weight group, 110-119 = 110 weight group, etc.**

SELECT

FLOOR(weight / 10) \* 10 AS weight\_group,

COUNT(\*) AS patient\_count

FROM patients

GROUP BY weight\_group

ORDER BY weight\_group DESC;

**-- 33. Show patient\_id, weight, height, isObese from the patients table. Display isObese as a**

**-- boolean 0 or 1. Obese is defined as weight(kg)/(height(m). Weight is in units kg. Height is in**

**-- units cm.**

select

patient\_id,

weight,

height,

CASE WHEN weight / (height / 100) / (height / 100) >= 30 THEN 1 ELSE 0 END AS isObese

from patients;

**-- 34. 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 p.patient\_id, p.first\_name, p.last\_name, d.specialty

from patients as p

join admissions as a

on p.patient\_id = a.patient\_id

join doctors as d

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

where d.first\_name = "Lisa" and a.diagnosis = "Epilepsy";

**/\*-- 35. 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.**

**The password must be the following, in order:**

**- patient\_id**

**- the numerical length of patient's last\_name**

**- year of patient's birth\_date \*/**

select

patient\_id,

concat(patient\_id , length(last\_name), year(birth\_date)) temp\_password

from patients

where exists

(select 1

from admissions

where admissions.patient\_id = patients.patient\_id);