

Practising SQL with real dataset

The datasets can be obtained from <https://www.sql-practice.com/>

MEDIUM

1. Show unique birth years from patients and order them by ascending.
2. 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.
3. Show patient_id and first_name from patients where their first_name start and ends with 's' and is at least 6 characters long.
4. Show patient_id, first_name, last_name from patients whose diagnosis is 'Dementia'. Primary diagnosis is stored in the admissions table.
5. Display every patient's first_name. Order the list by the length of each name and then by alphabetically.
6. 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.
7. Show first and last name, allergies from patients which have allergies to either 'Penicillin' or 'Morphine'. Show results ordered ascending by allergies then by first_name then by last_name.
8. Show patient_id, diagnosis from admissions. Find patients admitted multiple times for the same diagnosis.
9. Show the city and the total number of patients in the city. Order from most to least patients and then by city name ascending.
10. Show first name, last name and role of every person that is either patient or doctor. The roles are either "Patient" or "Doctor".
11. Show all allergies ordered by popularity. Remove NULL values from query.
12. 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.
13. 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 descending order
EX: SMITH, Jane

14. 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.
15. Show the difference between the largest weight and smallest weight for patients with the last name 'Maroni'.
16. Show all 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.
17. Show all columns for patient_id 542's most recent admission_date.
18. Show patient_id, attending_doctor_id, and diagnosis for admissions that match one of the two criteria:
 - a) patient_id is an odd number and attending_doctor_id is either 1, 5, or 19.
 - b) attending_doctor_id contains a 2 and the length of patient_id is 3 characters.
19. Show first_name, last_name, and the total number of admissions attended for each doctor. Every admission has been attended by a doctor.
20. For each doctor, display their id, full name, and the first and last admission date they attended.
21. Display the total amount of patients for each province. Order by descending.
22. For every admission, display the patient's full name, their admission diagnosis, and their doctor's full name who diagnosed their problem.
23. display the first name, last name and number of duplicate patients based on their first name and last name. Ex: A patient with an identical name can be considered a duplicate.
24. Display patient's full name, height in the units feet rounded to 1 decimal, weight in the unit pounds rounded to 0 decimals, birth_date, gender non abbreviated.
Convert CM to feet by dividing by 30.48.
Convert KG to pounds by multiplying by 2.205.
25. Show patient_id, first_name, last_name from patients whose does not have any records in the admissions table. (Their patient_id does not exist in any admissions.patient_id rows.)