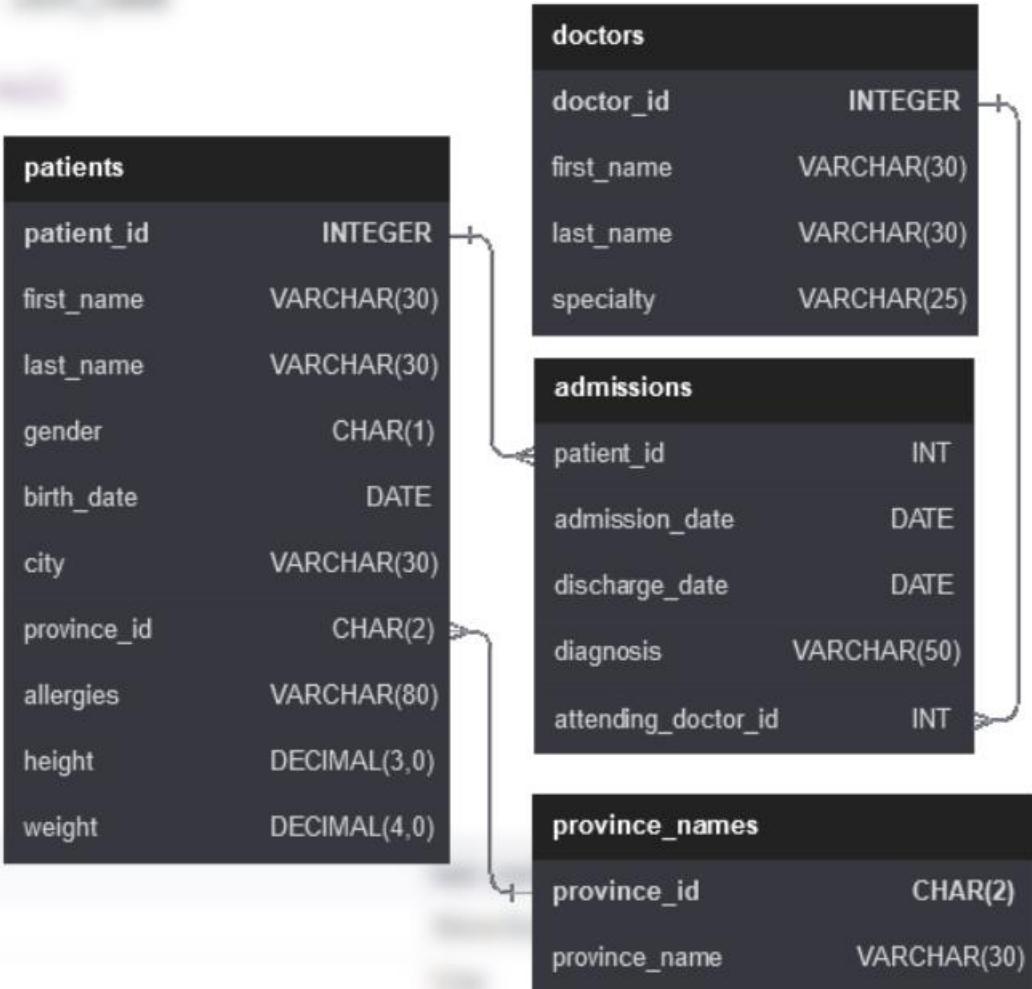


# REAL WORLD SQL CHALLENGES

DATABASE: HOSPITAL DIFFICULTY :MEDIUM STATUS :COMPLETED



# Question Selection

MEDIUM

INCOMPLETE

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

MEDIUM

INCOMPLETE

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.

MEDIUM

INCOMPLETE

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

MEDIUM

INCOMPLETE

Show patient\_id, first\_name, last\_name from patients whos diagnosis is 'Dementia'.

Primary diagnosis is stored in the admissions table.

MEDIUM

INCOMPLETE

Filters

Keywords

ALL

Case

Distinct

Group By

Having

In

Join

Like

Null

Union

Where

Count

Avg

Sum

Max

Min

Difficulty

ALL

Easy

Medium

Incomplete

Complete

Completion

ALL

Incomplete

Complete

Database

Hospital

Northwind

# Question Selection

MEDIUM

INCOMPLETE

Display every patient's first\_name.  
Order the list by the length of each name and then by alphabetically

MEDIUM

INCOMPLETE

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.

MEDIUM

INCOMPLETE

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.

MEDIUM

INCOMPLETE

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

MEDIUM

INCOMPLETE

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

Filters

Keywords

ALL

Case

Distinct

Group By

Having

In

Join

Like

Null

Union

Where

Count

Avg

Sum

Max

Min

Difficulty

ALL

Easy

Medium

Hard

Completion

ALL

Incomplete

Complete

Database

Hospital

Northwind

# Question Selection

MEDIUM

INCOMPLETE

Show first name, last name and role of every person that is either patient or doctor.

The roles are either "Patient" or "Doctor"

MEDIUM

INCOMPLETE

Show all allergies ordered by popularity. Remove 'NKA' and NULL values from query.

MEDIUM

INCOMPLETE

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.

MEDIUM

INCOMPLETE

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

MEDIUM

INCOMPLETE

Filters

Keywords

ALL

Case

Distinct

Group By

Having

In

Join

Like

Null

Union

Where

Count

Avg

Sum

Max

Min

Difficulty

ALL

Easy

Medium

Hard

Completion

ALL

Incomplete

Complete

Database

Hospital

Northwind

## Question Selection

MEDIUM

COMPLETED

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.

MEDIUM

COMPLETED

Show the difference between the largest weight and smallest weight for patients with the last name 'Maroni'

MEDIUM

COMPLETED

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.

MEDIUM

COMPLETED

Show the all columns for patient\_id 542's most recent admission\_date.

MEDIUM

COMPLETED

Show patient\_id, attending\_doctor\_id, and diagnosis for admissions that match one of the two criteria:

1. patient\_id is an odd number and attending\_doctor\_id is either 1, 5, or 19.
2. attending\_doctor\_id contains a 2 and the length of patient\_id is 3 characters.

Filters			
Keywords	Difficulty	Completion	Database
ALL	ALL	ALL	Hospital
Case	Easy	Incomplete	Northwind
Distinct	Medium	Complete	
Group By	Hard		
Having			
In			
Join			
Like			
Null			
Union			
Where			
Count			
Avg			
Sum			
Max			
Min			

## Question Selection

MEDIUM

COMPLETED

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

Every admission has been attended by a doctor.

MEDIUM

INCOMPLETE

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

MEDIUM

INCOMPLETE

Display the total amount of patients for each province. Order by descending.

MEDIUM

INCOMPLETE

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

MEDIUM

INCOMPLETE

display the first name, last name and number of duplicate patients based on their first name and last name.

MEDIUM

INCOMPLETE

Filters	
Keywords	Difficulty
ALL	ALL
Case	Easy
Distinct	Medium
Group By	Hard
Having	
In	
Join	
Like	
Null	
Union	
Where	
Count	
Avg	
Sum	
Max	
Min	

Completion Database

Hospital Hospital

Northwind

## Question Selection

display the first name, last name and number of duplicate patients based on their first name and last name.

MEDIUM

INCOMPLETE

Display patient's full name,  
height in the unit 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.

MEDIUM

INCOMPLETE

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.)

MEDIUM

INCOMPLETE

Display a single row with max\_visits, min\_visits, average\_visits where the maximum, minimum and average number of admissions per day is calculated.  
Average is rounded to 2 decimal places.

### Filters

Keywords

ALL

Case

Distinct

Group By

Having

In

Join

Like

Null

Union

Where

Count

Avg

Sum

Max

Min

Difficulty

ALL

Easy

Medium

Hard

Completion

ALL

Incomplete

Complete

Database

Hospital

Northwind

```
1 SELECT DISTINCT YEAR(birth_date) AS birth_year  
2 FROM patients  
3 ORDER BY YEAR(birth_date) ASC
```

You Got The Query Correct

[View All Questions](#)

[Next Question](#)

Easy ▾

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

## Solutions (1/2)

[Previous](#)

[Next](#)

```
SELECT  
    DISTINCT YEAR(birth_date) AS birth_year  
FROM patients  
ORDER BY birth_year;
```

birth\_year

1918

1923

1925

1926

1927

1928

1929

1931

```
1 SELECT first_name  
2 FROM patients  
3 GROUP BY first_name  
4 HAVING COUNT(*)=1  
5 ORDER BY first_name
```

You Got The Query Correct

[View All Questions](#)

[Next Question](#)

Medium ▾

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.

### first\_name

Abby

Adelaide

Adelia

Akira

Albert

Aldo

Showing 1 to 100 of 319 results

[Previous](#)

**1**

2

3

...

4

[Next](#)

### Solutions (1/2)

[Previous](#)

[Next](#)

```
SELECT first_name  
FROM patients  
GROUP BY first_name  
HAVING COUNT(first_name) = 1
```

Run

Settings

hospital.db

Contact

Left Menu

Right Menu

**SQL Database**

View Schema

**patients**

patient_id	INT
first_name	TEXT
last_name	TEXT
gender	CHAR(1)
birth_date	DATE
city	TEXT
province_id	CHAR(2)
allergies	TEXT
height	INT
weight	INT

**admissions****doctors****province\_names****Learning Resources****Ad**

Ads by Google

Stop seeing this ad

Why this ad? ⓘ

```

1 SELECT patient_id, first_name
2 FROM patients
3 WHERE first_name LIKE 'S%s'
4 AND LENGTH(first_name)>=6

```

You Got The Query Correct

View All Questions

Next Question

Medium

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

**Solutions (1/3)**

Previous

Next

```

SELECT
    patient_id,
    first_name
FROM patients
WHERE first_name LIKE 's____%s';

```

patient_id	first_name
496	Spiros
629	Spiros
648	Stanislaus
1273	Stanislaus
1789	Seamus
1926	Stanislaus
1996	Stanislaus
2258	Spiros

Learn SQL - Online SQL Terminal

sql-practice.com

Run ▶ Settings hospital.db Contact Left Menu Right Menu

**SQL Database**

View Schema

**patients**

	patient_id	first_name	last_name	gender	birth_date	city	province_id	allergies	height	weight
1	patient_id	INT								
2	first_name	TEXT								
3	last_name	TEXT								
4	gender	CHAR(1)								
5	birth_date	DATE								
6	city	TEXT								
7	province_id	CHAR(2)								
8	allergies	TEXT								
9	height	INT								
10	weight	INT								

**admissions**

**doctors**

**province\_names**

**Learning Resources**

**Ad**

VISA  
Pay with Visa and get exciting rewards!  
UP TO ₹750 BILL PAYMENT AND RECHARGE VOUCHER  
₹5000 VILLA STAY VOUCHER  
Know more

1 SELECT p.patient\_id, first\_name, last\_name  
2 FROM patients p  
3 JOIN admissions a  
4 ON p.patient\_id=a.patient\_id  
5 WHERE diagnosis='Dementia'

You Got The Query Correct

View All Questions

Next Question Medium

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

Solutions (3/3)

Previous Next

SELECT patient\_id, first\_name, last\_name  
FROM patients p  
WHERE 'Dementia' IN (  
SELECT diagnosis  
FROM admissions  
WHERE admissions.patient\_id = p  
);

patient_id	first_name	last_name
160	Miranda	Delacour
178	David	Bustamonte
207	Matt	Celine
613	Jaki	Granger
836	Montana	Vimes
924	Simon	Spellman
1201	Irene	Murphy
1264	Jillian	Valentine

## SQL Database

View Schema

## patients

patient_id	INT
first_name	TEXT
last_name	TEXT
gender	CHAR(1)
birth_date	DATE
city	TEXT
province_id	CHAR(2)
allergies	TEXT
height	INT
weight	INT

## admissions

## doctors

## province\_names

## Learning Resources

## Ad



```
1 SELECT first_name  
2 FROM patients  
3 ORDER BY LENGTH (first_name),first_name  
4
```

You Got The Query Correct

View All Questions

Next Question

Medium ▾

Display every patient's first\_name.  
Order the list by the length of each name and then by alphabetically.

## Solution

```
SELECT first_name  
FROM patients  
ORDER BY  
LEN(first_name),  
first_name;
```

## first\_name

AI

AI

AI

AI

AI

AI

Showing 1 to 100 of 4530 results

Previous 1 2 3 ... 46 Next

Run ▶

Settings

hospital.db

Contact

Left Menu

Right Menu

**SQL Database**

View Schema

**patients**

patient_id	INT
first_name	TEXT
last_name	TEXT
gender	CHAR(1)
birth_date	DATE
city	TEXT
province_id	CHAR(2)
allergies	TEXT
height	INT
weight	INT

**admissions****doctors****province\_names****Learning Resources****Ad**

```
1 SELECT
2 ( SELECT COUNT(*) FROM patients WHERE gender='M' ) AS male_count,
3 ( SELECT COUNT(*) FROM patients WHERE gender='F' ) AS female_count
4
```

You Got The Query Correct

View All Questions

Next Question

Medium ▾

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.

**Solutions (1/3)**

Previous

Next

SELECT

```
(SELECT COUNT(*) FROM patients WHI
(SELECT COUNT(*) FROM patients WHI
```

male_count	female_count
2468	2062

Run ▶ Settings hospital.db ▾ Contact Left Menu Right Menu

### SQL Database

[View Schema](#)

patients	
patient_id	INT
first_name	TEXT
last_name	TEXT
gender	CHAR(1)
birth_date	DATE
city	TEXT
province_id	CHAR(2)
allergies	TEXT
height	INT
weight	INT

[admissions](#)

[doctors](#)

[province\\_names](#)

[Learning Resources](#)

[Ad](#)

```

1 SELECT first_name, last_name, allergies
2 FROM patients
3 WHERE allergies = 'Penicillin' OR allergies= 'Morphine'
4 ORDER BY allergies ASC , first_name ASC, last_name ASC

```

You Got The Query Correct

[View All Questions](#)

[Next Question](#) Medium ▾

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.

**Solutions (1/2)**

[Previous](#) [Next](#)

```

SELECT
    first_name,
    last_name,
    allergies
FROM patients
WHERE
    allergies IN ('Penicillin', 'Morphine')
ORDER BY
    allergies,
    first_name,
    last_name;

```

first_name	last_name	allergies
Briareos	Hayes	Morphine
Christine	Argyros	Morphine
Griselda	Hopper	Morphine
Henry	Huang	Morphine
Janice	Redfield	Morphine
Jesse	Guarnaccia	Morphine

Showing 1 to 100 of 1104 results

Previous **1** 2 3 ... 12 Next

```
1 SELECT patient_id, diagnosis  
2 FROM admissions  
3 GROUP BY patient_id, diagnosis  
4 HAVING COUNT(*)>1
```

You Got The Query Correct

[View All Questions](#)

[Next Question](#)

Medium ▾

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

## Solution

```
SELECT  
    patient_id,  
    diagnosis  
FROM admissions  
GROUP BY  
    patient_id,  
    diagnosis  
HAVING COUNT(*) > 1;
```

patient_id	diagnosis
137	Pregnancy
320	Pneumonia
1577	Congestive Heart Failure
2004	Left Shoulder Rotator Cuff Repair
2859	Severed Spine At C3
3012	Appendicitis
3367	Pyelonephritis
3468	Congestive Heart Failure

**SQL Database**

View Schema

**patients**

patient_id	INT
first_name	TEXT
last_name	TEXT
gender	CHAR(1)
birth_date	DATE
city	TEXT
province_id	CHAR(2)
allergies	TEXT
height	INT
weight	INT

**admissions****doctors****province\_names****Learning Resources****Ad**

```
1 SELECT city, COUNT(*) AS num_patients
2 FROM patients
3 GROUP BY city
4 ORDER BY COUNT(*) DESC, city ASC
```

You Got The Query Correct

View All Questions

Next Question

Easy ▾

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

**Solution**

```
SELECT
    city,
    COUNT(*) AS num_patients
FROM patients
GROUP BY city
ORDER BY num_patients DESC, city ASC
```

city	num_patients
Hamilton	1938
Toronto	317
Burlington	276
Brantford	147
Ancaster	117
Stoney Creek	107
Cambridge	79
Dundas	79

Run ▶

Settings

hospital.db

Contact

Left Menu

Right Menu

**SQL Database**

View Schema

**patients**

patient_id	INT
first_name	TEXT
last_name	TEXT
gender	CHAR(1)
birth_date	DATE
city	TEXT
province_id	CHAR(2)
allergies	TEXT
height	INT
weight	INT

**admissions****doctors****province\_names****Learning Resources****Ad**

```

1 SELECT first_name, last_name, 'patient' AS role
2 FROM patients
3 UNION ALL
4 SELECT first_name, last_name, 'doctor' AS role
5 FROM doctors
6
7

```

You Got The Query Correct

View All Questions

Next Question

Easy ▾

Show first name, last name and role of every person that is either patient or doctor.

The roles are either "Patient" or "Doctor"

**Solution**

```

SELECT first_name, last_name, 'Patient' AS role
UNION ALL
SELECT first_name, last_name, 'Doctor' AS role

```

first_name	last_name	role
Donald	Waterfield	patient
Mickey	Baasha	patient
Jiji	Sharma	patient
Blair	Diaz	patient
Charles	Wolfe	patient
Sue	Falcon	patient

Showing 1 to 100 of 4557 results

Previous 1 2 3 ... 46 Next

## SQL Database

View Schema

## patients

patient_id	INT
first_name	TEXT
last_name	TEXT
gender	CHAR(1)
birth_date	DATE
city	TEXT
province_id	CHAR(2)
allergies	TEXT
height	INT
weight	INT

## admissions

## doctors

## province\_names

## Learning Resources

## Ad

```
1 SELECT allergies, COUNT(*) AS total_diagnosis
2 FROM patients
3 WHERE allergies IS NOT null
4 GROUP BY allergies
5 ORDER BY total_diagnosis DESC
6
7
```

You Got The Query Correct

View All Questions

Next Question

Medium

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

## Solutions (3/3)

Previous

Next

```
SELECT
    allergies,
    COUNT(allergies) AS total_diagnosis
FROM patients
GROUP BY allergies
HAVING
    allergies IS NOT NULL
ORDER BY total_diagnosis DESC
```

allergies	total_diagnosis
Penicillin	1082
Codeine	305
Sulfa	157
ASA	99
Sulfa Drugs	71
Peanuts	52
Iodine	48
Tylenol	42

**SQL Database**

View Schema

**patients**

patient_id	INT
first_name	TEXT
last_name	TEXT
gender	CHAR(1)
birth_date	DATE
city	TEXT
province_id	CHAR(2)
allergies	TEXT
height	INT
weight	INT

**admissions****doctors****province\_names****Learning Resources****Ad**

```
1 SELECT first_name, last_name, birth_date
2 FROM patients
3 WHERE YEAR(birth_date) LIKE '197%'
4 ORDER BY birth_date ASC
5
6
```

first_name	last_name	birth_date
Frances	Kobayakawa	1970-01-02
Sunny	Burrell	1970-01-07
Penelope	Beckett	1970-01-14
Deborah	Stewart	1970-01-14
Augusta	Decker	1970-01-22
Sookie	Breary	1970-02-01

Showing 1 to 100 of 623 results

Previous 1 2 3 ... 7 Next

You Got The Query Correct

View All Questions

Next Question

Medium ▾

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.

**Solutions (1/3)**

Previous

Next

```
SELECT
    first_name,
    last_name,
    birth_date
FROM patients
WHERE
    YEAR(birth_date) BETWEEN 1970 AND
ORDER BY birth_date ASC;
```

**SQL Database**

View Schema

**patients**

patient_id	INT
first_name	TEXT
last_name	TEXT
gender	CHAR(1)
birth_date	DATE
city	TEXT
province_id	CHAR(2)
allergies	TEXT
height	INT
weight	INT

**admissions****doctors****province\_names****Learning Resources**

Ad

```
1 SELECT CONCAT(UPPER(last_name), ',', LOWER(first_name)) AS new_name
2 FROM patients
3 ORDER BY first_name DESC
4
```

You Got The Query Correct

View All Questions

Next Question

Medium ▾

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

**Solutions (1/2)**

Previous

Next

```
SELECT
    CONCAT(UPPER(last_name), ',', LOWER(first_name)) AS new_name
FROM patients
ORDER BY first_name DESC;
```

**new\_name**

MILLER,zoe

CORBIE,ziva

KOBAYAKAWA,zenigata

OVERSTREET,zenigata

BENNETT,zen

MEPHESTO,zelda

[Run ▶](#)[Settings](#)

hospital.db

[Contact](#)[Left Menu](#)[Right Menu](#)

## SQL Database

[View Schema](#)

### patients

patient_id	INT
first_name	TEXT
last_name	TEXT
gender	CHAR(1)
birth_date	DATE
city	TEXT
province_id	CHAR(2)
allergies	TEXT
height	INT
weight	INT

### admissions

### doctors

### province\_names

### Learning Resources

### Ad

[Ads by Google](#)[Send feedback](#)[Why this ad? ⓘ](#)

```
1 SELECT province_id, SUM(height)
2 FROM patients
3 GROUP BY province_id
4 HAVING SUM(height) >= 7000
5
```

You Got The Query Correct

[View All Questions](#)[Next Question](#)[Easy](#)

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.

### Solutions (1/2)

[Previous](#)[Next](#)

```
SELECT
    province_id,
    SUM(height) AS sum_height
FROM patients
GROUP BY province_id
HAVING sum_height >= 7000
```

province_id	sum(height)
BC	7720
NS	9765
ON	678037

## SQL Database

View Schema

## patients

patient_id	INT
first_name	TEXT
last_name	TEXT
gender	CHAR(1)
birth_date	DATE
city	TEXT
province_id	CHAR(2)
allergies	TEXT
height	INT
weight	INT

## admissions

## doctors

## province\_names

## Learning Resources

## Ad

Ads by Google

Send feedback

Why this ad? ⓘ

```
1 SELECT MAX(weight) - MIN(weight) AS weight_delta
2 FROM patients
3 WHERE last_name = 'Maroni'
```

You Got The Query Correct

View All Questions

Next Question

Medium ▾

Show the difference between the largest weight and smallest weight for patients with the last name 'Maroni'

## Solution

```
SELECT
    (MAX(weight) - MIN(weight)) AS weight_delta
FROM patients
WHERE last_name = 'Maroni';
```

## weight\_delta

71

Run ▶

Settings

hospital.db

Contact

Left Menu

Right Menu

**SQL Database**

View Schema

**patients**

patient_id	INT
first_name	TEXT
last_name	TEXT
gender	CHAR(1)
birth_date	DATE
city	TEXT
province_id	CHAR(2)
allergies	TEXT
height	INT
weight	INT

**admissions****doctors****province\_names****Learning Resources****Ad**

Ads by Google

Send feedback

Why this ad? ⓘ

```
1 SELECT DAY(admission_date) AS day_number,
2 COUNT(*) AS no_of_admissions
3 FROM admissions
4 GROUP BY DAY(admission_date)
5 ORDER BY no_of_admissions DESC
```

You Got The Query Correct

View All Questions

Next Question

Medium ▾

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.

**Solution**

```
SELECT
  DAY(admission_date) AS day_number,
  COUNT(*) AS number_of_admissions
FROM admissions
GROUP BY day_number
ORDER BY number_of_admissions DESC
```

day_number	no_of_admissions
11	184
4	184
9	183
2	180
12	179
6	179
16	177
21	174

## SQL Database

View Schema

## patients

patient_id	INT
first_name	TEXT
last_name	TEXT
gender	CHAR(1)
birth_date	DATE
city	TEXT
province_id	CHAR(2)
allergies	TEXT
height	INT
weight	INT

## admissions

## doctors

## province\_names

## Learning Resources

## Ad

Ads by Google

Send feedback

Why this ad? ⓘ

```
1 SELECT patient_id, MAX(admission_date), MAX(discharge_date), diagnosis,
2 attending_doctor_id
3 FROM admissions
4 WHERE patient_id = '542'
```

You Got The Query Correct

View All Questions

Next Question

Medium ▾

Show all columns for patient\_id  
542's most recent admission\_date.

## Solutions (1/4)

Previous

Next

```
SELECT *
FROM admissions
WHERE patient_id = 542
GROUP BY patient_id
HAVING
    admission_date = MAX(admission_date)
```

patient_id	max(admission_date)	max(discharge_date)	diagnosis	attending_doctor_id
542	2019-04-06	2019-04-09	Abdominal Pain	14

**SQL Database**

View Schema

**patients****admissions**

patient_id	INT
admission_date	DATE
discharge_date	DATE
diagnosis	TEXT
attending_doctor_id	INT

**doctors****province\_names****Learning Resources****Ad**

← Ads by Google

**Send feedback**

Why this ad? ⓘ

```
1 SELECT patient_id, diagnosis, attending_doctor_id
2 FROM admissions
3 WHERE patient_id %2 <>0
4 AND attending_doctor_id IN ('1','5','19')
5 OR attending_doctor_id LIKE ('%2%')
6 AND LENGTH(patient_id)=3
```

You Got The Query Correct

View All Questions

Next Question

Medium ▾

Show patient\_id, attending\_doctor\_id, and diagnosis for admissions that match one of the two criteria:

1. patient\_id is an odd number and attending\_doctor\_id is either 1, 5, or 19.
2. attending\_doctor\_id contains a 2 and the length of patient\_id is 3 characters.

**Solution**

```
SELECT
    patient_id,
    attending_doctor_id,
    diagnosis
FROM admissions
WHERE
(
    attending_doctor_id IN (1, 5,
    AND patient_id % 2 != 0
)
OR
(
```

patient_id	diagnosis	attending_doctor_id
9	Ruptured Appendicitis	19
13	Renal Failure	1
15	Hiatal Hernia	5
31	Cardiovascular Disease	19
51	Undiagnosed Chest Pain	1
100	Depression, Dementia	22

Showing 1 to 100 of 663 results

Previous 1 2 3 ... 7 Next

## SQL Database

View Schema

patients

admissions

patient_id	INT
admission_date	DATE
discharge_date	DATE
diagnosis	TEXT
attending_doctor_id	INT

doctors

province\_names

Learning Resources

Ad



Microsoft Azure

```
1 SELECT d.first_name, d.last_name, COUNT(a.admission_date) AS admission_total
2 FROM doctors d
3 JOIN admissions a
4 ON d.doctor_id = a.attending_doctor_id
5 GROUP BY d.first_name, d.last_name
6 ORDER BY d.first_name, d.last_name
7
```

You Got The Query Correct

View All Questions

Next Question

Medium ▾

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

Every admission has been attended by a doctor.

## Solutions (1/2)

Previous

Next

first_name	last_name	admission_total
Angelica	Noe	209
Bobbi	Estrada	176
Claude	Walls	214
Donna	Greenwood	203
Douglas	Brooks	201
Flora	Moore	194
Hazel	Patterson	206
Heather	Beck	178

```
SELECT
    first_name,
    last_name,
    COUNT(*) AS admissions_total
FROM admissions a
JOIN doctors ph ON ph.doctor_id =
GROUP BY attending_doctor_id
```

## SQL Database

View Schema

## patients

## admissions

patient_id	INT
admission_date	DATE
discharge_date	DATE
diagnosis	TEXT
attending_doctor_id	INT

## doctors

## province\_names

## Learning Resources

## Ad



```
1 SELECT d.doctor_id, CONCAT(d.first_name, ' ', d.last_name) AS full_name,
2 MIN(a.admission_date) AS first_admission_date,
3 MAX(a.admission_date) AS last_admission_date
4 FROM doctors d
5 JOIN admissions a
6 ON a.attending_doctor_id = d.doctor_id
7 GROUP BY d.doctor_id
8
```

You Got The Query Correct

View All Questions

Next Question

Medium ▾

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

## Solution

```
SELECT
    doctor_id,
    first_name || ' ' || last_name AS full_name,
    MIN(admission_date) AS first_admission_date,
    MAX(admission_date) AS last_admission_date
FROM admissions a
JOIN doctors ph ON a.attending_doctor_id = ph.doctor_id
GROUP BY doctor_id;
```

doctor_id	full_name	first_admission_date	last_admission_date
1	Claude Walls	2018-06-10	2019-06-03
2	Joshua Green	2018-06-06	2019-06-03
3	Miriam Tregre	2018-06-06	2019-06-03
4	James Russo	2018-06-10	2019-06-04
5	Scott Hill	2018-06-06	2019-06-05
6	Tasha Phillips	2018-06-06	2019-06-02
7	Hazel Patterson	2018-06-10	2019-06-05
8	Mickey Duval	2018-06-10	2019-06-05

**SQL Database**

View Schema

**patients****admissions**

patient_id	INT
admission_date	DATE
discharge_date	DATE
diagnosis	TEXT
attending_doctor_id	INT

**doctors****province\_names****Learning Resources****Ad**

```
1 SELECT pn.province_name, COUNT(*) AS patient_count
2 FROM province_names pn
3 JOIN patients p
4 ON p.province_id=pn.province_id
5 GROUP BY province_name
6 ORDER BY patient_count DESC
```

You Got The Query Correct

View All Questions

Next Question

Medium ▾

Display the total amount of patients for each province. Order by descending.

**Solution**

```
SELECT
    province_name,
    COUNT(*) AS patient_count
FROM patients pa
JOIN province_names pr ON pr.prov:
GROUP BY pr.province_id
ORDER BY patient_count DESC;
```

province_name	patient_count
Ontario	4298
Nova Scotia	60
British Columbia	49
Alberta	47
Manitoba	31
Quebec	23
Saskatchewan	13
Newfoundland and Labrador	9

**SQL Database**

View Schema

**patients****admissions**

patient_id	INT
admission_date	DATE
discharge_date	DATE
diagnosis	TEXT
attending_doctor_id	INT

**doctors****province\_names****Learning Resources****Ad**

```

1 SELECT CONCAT(p.first_name, ' ', p.last_name) AS patient_name,
2 a.diagnosis,
3 CONCAT(d.first_name, ' ', d.last_name) AS doctor_name
4 FROM admissions a
5 JOIN patients p
6 ON a.patient_id=p.patient_id
7 JOIN doctors d
8 ON a.attending_doctor_id = d.doctor_id

```

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

[Get Hint](#) [View Solution](#)
**Table Info**

View Schema

**patients****admissions****doctors****Hints****Expected Output**

patient_name	diagnosis	doctor_name
Donald Waterfield	Ovarian Dermoid-Cyst	Lisa Cuddy
Donald Waterfield	Ineffective Breathing Pattern R/T Fluid Accumulation	Jenny Pulaski
Jiji Sharma	Cardiac Arrest	Joshua Green
Jiji Sharma	Congestive Heart Failure	Mickey Duval
Sue Falcon	Asthma Exacerbation	Miriam Tregre
Sue Falcon	Uterine Fibroid	Simon Santiago

Showing 1 to 100 of 5067 results

[Previous](#) [1](#) [2](#) [3](#) ... [51](#) [Next](#)

**SQL Database**

View Schema

**patients****admissions**

patient_id	INT
admission_date	DATE
discharge_date	DATE
diagnosis	TEXT
attending_doctor_id	INT

**doctors****province\_names****Learning Resources****Ad**

```
1 SELECT first_name, last_name , COUNT(*) AS no_of_duplicates
2 FROM patients
3 GROUP BY first_name, last_name
4 HAVING COUNT(*) >1
```

You Got The Query Correct

View All Questions

Next Question

Medium ▾

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.

**Solution**

```
SELECT
    first_name,
    last_name,
    COUNT(*) AS num_of_duplicates
FROM patients
GROUP BY
    first_name,
    last_name
HAVING COUNT(*) > 1
```

first_name	last_name	no_of_duplicates
Alexandra	Holroyd	2
Avon	Travis	2
Belladonna	Thomas	2
Chris	Johnson	2
Dol	Forelli	2
Emil	Owens	2
Jack	Bennett	2
Jack	McArthur	2

## SQL Database

View Schema

## patients

## admissions

patient_id	INT
admission_date	DATE
discharge_date	DATE
diagnosis	TEXT
attending_doctor_id	INT

## doctors

## province\_names

## Learning Resources

## Ad

Optum

```

1 SELECT CONCAT(first_name, ' ', last_name) AS patient_name ,
2 ROUND(height /30.48,1 ) AS height,
3 ROUND(weight *2.205,0 ) AS weight,
4 birth_date,
5 CASE WHEN gender= 'M' THEN 'male'
6 ELSE 'female'
7 END AS 'gender_type'
8 FROM patients

```

You Got The Query Correct

View All Questions

Next Question

Medium ▾

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.

## Solution

patient_name	height	weight	birth_date	gender_type
Donald Waterfield	5.1	143	1963-02-12	male
Mickey Baasha	6.1	168	1981-05-28	male
Jiji Sharma	6.4	234	1957-09-05	male

Showing 1 to 100 of 4530 results

Previous 1 2 3 ... 46 Next

```

SELECT
    CONCAT(first_name, ' ', last_n
    ROUND(height / 30.48, 1) AS 'h
    ROUND(weight * 2.205, 0) AS 'w
CASE
    WHEN gender = 'M' THEN 'MALE'
    ELSE 'FEMALE'
END AS 'gender_type'
FROM patients

```

**SQL Database**

View Schema

**patients****admissions**

patient_id	INT
admission_date	DATE
discharge_date	DATE
diagnosis	TEXT
attending_doctor_id	INT

**doctors****province\_names****Learning Resources****Ad****Optum**

```
1 SELECT p.patient_id, p.first_name, p.last_name
2 FROM patients p
3 WHERE p.patient_id NOT IN (SELECT patient_id FROM admissions)
```

You Got The Query Correct

View All Questions

Next Question

Medium ▾

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.)

**Solutions (1/2)**

Previous

Next

```
SELECT
    patients.patient_id,
    first_name,
    last_name
FROM patients
WHERE patients.patient_id NOT IN (
    SELECT admissions.patient_id
    FROM admissions
)
```

patient_id	first_name	last_name
2	Mickey	Baasha
4	Blair	Diaz
5	Charles	Wolfe

Showing 1 to 100 of 1148 results

Previous 1 2 3 ... 12 Next

Run ▶

Settings

hospital.db

Contact

Left Menu

Right Menu

**SQL Database**

View Schema

**patients****admissions**

patient_id	INT
admission_date	DATE
discharge_date	DATE
diagnosis	TEXT
attending_doctor_id	INT

**doctors****province\_names****Learning Resources****Ad**

```
1 SELECT MAX(no_of_visits) AS max_visits,
2 MIN(no_of_visits) AS min_visits,
3 ROUND(AVG(no_of_visits),2) AS average_visits
4 FROM (
5     SELECT admission_date, COUNT(*) AS no_of_visits
6     FROM admissions
7     GROUP BY admission_date
8 )
```

You Got The Query Correct

View All Questions

Next Question

Medium ▾

Display a single row with max\_visits, min\_visits, average\_visits where the maximum, minimum and average number of admissions per day is calculated. Average is rounded to 2 decimal places.

**Solution**

```
SELECT
    MAX(number_of_visits) AS max_visits,
    MIN(number_of_visits) AS min_visits,
    ROUND(AVG(number_of_visits),2) AS average_visits
FROM (
    SELECT admission_date, COUNT(*) AS no_of_visits
    FROM admissions
    GROUP BY admission_date
)
```

max_visits	min_visits	average_visits
30	4	13.88



*Thank you*