

HOMEWORK - DATABASE

19. Design the necessary database for records of patients and consultations at a private office

1. Design the database

CREATE DATABASE dbhm28;

```
mysql> CREATE DATABASE dbhm28;  
Query OK, 1 row affected (0.00 sec)
```

2. Verify that the database has been created

SHOW DATABASES;

```
mysql> SHOW DATABASES;  
+-----+  
| Database |  
+-----+  
| db28     |  
| dbhm28   |  
| information_schema |  
| lab4     |  
| mysql    |  
| performance_schema |  
| sys      |  
| world    |  
+-----+  
8 rows in set (0.00 sec)
```

3. Set the database to use

USE dbhm28;

```
mysql> USE dbhm28;  
Database changed
```

4. Create the database tables (minimum three tables, maximum five tables)

CREATE TABLE consultations (name char(20) primary key, price float, description char(50));

CREATE TABLE patients (client_id int unique auto_increment primary key, lastname char(20) not null, firstname char(20) not null, gender int not null, consultation_done char(20) references consultations(name), date_of_consultation date not null, foreign key (consultation_done) references consultations(name));

CREATE TABLE personnel (id int unique auto_increment primary key, position char(20) not null, lastname char(20) not null, firstname char(20) not null, occupation char(20) references consultations(name), foreign key (occupation) references consultations(name));

```
mysql> CREATE TABLE consultations (name char(20) primary key, price float, description char(50));
Query OK, 0 rows affected (0.01 sec)

mysql>
mysql> CREATE TABLE patients (client_id int unique auto_increment primary key, lastname char(20) not null,
firstname char(20) not null, gender int not null, consultation_done char(20) references consultations(name),
date_of_consultation date not null, foreign key (consultation_done) references consultations(name));
Query OK, 0 rows affected (0.03 sec)

mysql>
mysql> CREATE TABLE personnel (id int unique auto_increment primary key, position char(20) not null,
lastname char(20) not null, firstname char(20) not null, occupation char(20) references consultations(name),
foreign key (occupation) references consultations(name));
Query OK, 0 rows affected (0.02 sec)
```

DESCRIBE consultations;

```
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| name       | char(20)  | NO   | PRI | NULL    |       |
| price      | float     | YES  |     | NULL    |       |
| description | char(50)  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

DESCRIBE patients;

| Field | Type | Null | Key | Default | Extra |
|----------------------|----------|------|-----|---------|----------------|
| client_id | int | NO | PRI | NULL | auto_increment |
| lastname | char(20) | NO | | NULL | |
| firstname | char(20) | NO | | NULL | |
| gender | int | NO | | NULL | |
| consultation_done | char(20) | YES | MUL | NULL | |
| date_of_consultation | date | NO | | NULL | |

6 rows in set (0.00 sec)

DESCRIBE personnel;

| Field | Type | Null | Key | Default | Extra |
|------------|----------|------|-----|---------|----------------|
| id | int | NO | PRI | NULL | auto_increment |
| position | char(20) | NO | | NULL | |
| lastname | char(20) | NO | | NULL | |
| firstname | char(20) | NO | | NULL | |
| occupation | char(20) | YES | MUL | NULL | |

5 rows in set (0.00 sec)

5. Insert data into tables (minimum 15 records, maximum 20 records, in each table).

```
INSERT INTO consultations (name, price, description) VALUES
('dermatology', 270, 'examination and treatment'),
('allergy_test', 95, 'procedure and interpretation'),
('EKG', 220, 'procedure and interpretation'),
('EMERGENCY', 435, 'examination'),
('ophthalmology', 400, 'examination and nterpretation'),
('angioplasty', 1360, 'procedure and recuperation'),
('cardiology', 350, 'exam and treatment'),
('abdominoplasty', 15500, 'procedure and recuperation'),
('biopsy', 4500, 'procedure'),
('orthopedics', 350, 'consult'),
('extraction', 325, 'procedure'),
('ultrasound', 210, 'procedure and interpretation'),
('epidermiology', 230, 'control'),
('hematology', 350, 'consult'),
('neurology', 350, 'consult'),
('pneumology', 435, 'consult and interpretation'),
('radiotherapy', 500, 'consult and medication');
```

```
mysql> INSERT INTO consultations (name, price, description) VALUES
-> ('dermatology', 270, 'examination and treatment'),
-> ('allergy_test', 95, 'procedure and interpretation'),
-> ('EKG', 220, 'procedure and interpretation'),
-> ('EMERGENCY', 435, 'examination'),
-> ('ophthalmology', 400, 'examination and nterpretation'),
-> ('angioplasty', 1360, 'procedure and recuperation'),
-> ('cardiology', 350, 'exam and treatment'),
-> ('abdominoplasty', 15500, 'procedure and recuperation'),
-> ('biopsy', 4500, 'procedure'),
-> ('orthopedics', 350, 'consult'),
-> ('extraction', 325, 'procedure'),
-> ('ultrasound', 210, 'procedure and interpretation'),
-> ('epidermiology', 230, 'control'),
-> ('hematology', 350, 'consult'),
-> ('neurology', 350, 'consult'),
-> ('pneumology', 435, 'consult and interpretation'),
-> ('radiotherapy', 500, 'consult and medication');
Query OK, 17 rows affected (0.00 sec)
Records: 17  Duplicates: 0  Warnings: 0
```

INSERT INTO patients (lastname, firstname, gender, consultation_done,
date_of_consultation) VALUES

```
('Anderson', 'Oliver', 0, 'dermatology', '2023-12-06'),
('Martinez', 'Sophia', 1, 'radiotherapy', '2023-10-20'),
('Reynolds', 'Ethan', 0, 'epidermiology', '2023-09-26'),
('Donovan', 'Ava', 1, 'cardiology', '2023-03-04'),
('Patel', 'Jackson', 0, 'extraction', '2023-12-19'),
('Harper', 'Mia', 1, 'EKG', '2023-10-04'),
('Williams', 'Adam', 0, 'epidermiology', '2023-06-22'),
('Nuhan', 'Isabella', 1, 'EMERGENCY', '2023-10-04'),
('Thompson', 'Lucas', 0, 'dermatology', '2023-04-26'),
('Wright', 'Angela', 1, 'orthopedics', '2023-03-07'),
('Mitchel', 'Noah', 0, 'neurology', '2023-10-01'),
('Rodriguez', 'Ella', 1, 'ophthalmology', '2023-02-14'),
('Brooks', 'Liam', 0, 'epidermiology', '2023-05-15'),
('Kim', 'Grace', 1, 'EMERGENCY', '2023-07-15'),
('Murphy', 'Caleb', 0, 'EMERGENCY', '2023-04-13'),
('Foster', 'Scarlett', 1, 'ophthalmology', '2023-09-01'),
('Evans', 'Mason', 0, 'EMERGENCY', '2023-12-19'),
('Turner', 'Lilly', 1, 'neurology', '2023-10-04');
```

```
mysql> INSERT INTO patients (lastname, firstname, gender, consultation_done, date_of_
consultation) VALUES
-> ('Anderson', 'Oliver', 0, 'dermatology', '2023-12-06'),
-> ('Martinez', 'Sophia', 1, 'radiotherapy', '2023-10-20'),
-> ('Reynolds', 'Ethan', 0, 'epidermiology', '2023-09-26'),
-> ('Donovan', 'Ava', 1, 'cardiology', '2023-03-04'),
-> ('Patel', 'Jackson', 0, 'extraction', '2023-12-19'),
-> ('Harper', 'Mia', 1, 'EKG', '2023-10-04'),
-> ('Williams', 'Adam', 0, 'epidermiology', '2023-06-22'),
-> ('Nuhan', 'Isabella', 1, 'EMERGENCY', '2023-10-04'),
-> ('Thompson', 'Lucas', 0, 'dermatology', '2023-04-26'),
-> ('Wright', 'Angela', 1, 'orthopedics', '2023-03-07'),
-> ('Mitchel', 'Noah', 0, 'neurology', '2023-10-01'),
-> ('Rodriguez', 'Ella', 1, 'ophthalmology', '2023-02-14'),
-> ('Brooks', 'Liam', 0, 'epidermiology', '2023-05-15'),
-> ('Kim', 'Grace', 1, 'EMERGENCY', '2023-07-15'),
-> ('Murphy', 'Caleb', 0, 'EMERGENCY', '2023-04-13'),
-> ('Foster', 'Scarlett', 1, 'ophthalmology', '2023-09-01'),
-> ('Evans', 'Mason', 0, 'EMERGENCY', '2023-12-19'),
-> ('Turner', 'Lilly', 1, 'neurology', '2023-10-04');
Query OK, 18 rows affected (0.00 sec)
Records: 18 Duplicates: 0 Warnings: 0
```

```
INSERT INTO personnel (position, lastname, firstname, occupation) VALUES
('Office assistant', 'Angel', 'Claire', 'paperwork'),
('Doctor', 'Morgan', 'Chloe', 'allergy test'),
('Doctor', 'Stewart', 'Allie', 'extraction'),
('Medical assistant', 'Rivera', 'Johnas', 'EMERGENCY'),
('Doctor', 'Morgan', 'Wyatt', 'orthopedics'),
('Medical assistant', 'Price', 'Elijah', 'dermatology'),
('Medical assistant', 'Jordan', 'Olivia', 'ultrasound'),
('Office assistant', 'Henry', 'Elijah', 'appointment'),
('Doctor', 'Rohan', 'Aria', 'angioplasty'),
('Doctor', 'Baker', 'Carlos', 'cardiology'),
('Doctor', 'Baker', 'Samuel', 'allergy test'),
('Medical assistant', 'Rodriguez', 'Carlos', 'biopsy'),
('Doctor', 'Patel', 'Mitchell', 'radiotherapy'),
('Doctor', 'Blue', 'Jackson', 'EMERGENCY'),
('Doctor', 'Taylor', 'Hayes', 'pneumology'),
('Medical assistant', 'Chang', 'Jasmine', 'hematology'),
('Office assistant', 'Turner', 'Zoe', 'reception');
```

```
mysql> INSERT INTO personnel (position, lastname, firstname, occupation) VALUES
-> ('Doctor', 'Chang', 'Logan', 'extraction'),
-> ('Doctor', 'Williams', 'Chloe', 'allergy test'),
-> ('Office assistant', 'Stewart', 'Harper', 'paperwork'),
-> ('Medical assistant', 'Rivera', 'Benjamin', 'EMERGENCY'),
-> ('Doctor', 'Morgan', 'Zoe', 'orthopedics'),
-> ('Doctor', 'Carther', 'Elijah', 'dermatology'),
-> ('Medical assistant', 'Jordan', 'Samuel', 'ultrasound'),
-> ('Doctor', 'Price', 'Avery', 'ophthalmology'),
-> ('Doctor', 'Mitchell', 'Aria', 'angioplasty'),
-> ('Doctor', 'Baker', 'Henry', 'cardiology'),
-> ('Medical assistant', 'Baker', 'Olivia', 'allergy test'),
-> ('Doctor', 'Rodriguez', 'Carlos', 'biopsy'),
-> ('Doctor', 'Patel', 'Rohan', 'radiotherapy'),
-> ('Medical assistant', 'Hayes', 'Jackson', 'EMERGENCY'),
-> ('Doctor', 'Taylor', 'Morgan', 'pneumology'),
-> ('Doctor', 'Chang', 'Jasmine', 'hematology'),
-> ('Doctor', 'Turner', 'Wyatt', 'epidermiology');
Query OK, 17 rows affected (0.00 sec)
Records: 17 Duplicates: 0 Warnings: 0
```

6. Check the addition of records in the created tables

SELECT * FROM consultations;

| name | price | description |
|----------------|-------|-------------------------------|
| abdominoplasty | 15500 | procedure and recuperation |
| allergy_test | 95 | procedure and interpretation |
| angioplasty | 1360 | procedure and recuperation |
| biopsy | 4500 | procedure |
| cardiology | 350 | exam and treatment |
| dermatology | 270 | examination and treatment |
| EKG | 220 | procedure and interpretation |
| EMERGENCY | 435 | examination |
| epidermiology | 230 | control |
| extraction | 325 | procedure |
| hematology | 350 | consult |
| neurology | 350 | consult |
| ophthalmology | 400 | examination and nterpretation |
| orthopedics | 350 | consult |
| pneumology | 435 | consult and interpretation |
| radiotherapy | 500 | consult and medication |
| ultrasound | 210 | procedure and interpretation |

17 rows in set (0.00 sec)

SELECT * FROM patients;

| client_id | lastname | firstname | gender | consultation_done | date_of_consultation |
|-----------|-----------|-----------|--------|-------------------|----------------------|
| 1 | Anderson | Oliver | 0 | dermatology | 2023-12-06 |
| 2 | Martinez | Sophia | 1 | radiotherapy | 2023-10-20 |
| 3 | Reynolds | Ethan | 0 | epidermiology | 2023-09-26 |
| 4 | Donovan | Ava | 1 | cardiology | 2023-03-04 |
| 5 | Patel | Jackson | 0 | extraction | 2023-12-19 |
| 6 | Harper | Mia | 1 | EKG | 2023-10-04 |
| 7 | Williams | Adam | 0 | epidermiology | 2023-06-22 |
| 8 | Nuhan | Isabella | 1 | EMERGENCY | 2023-10-04 |
| 9 | Thompson | Lucas | 0 | dermatology | 2023-04-26 |
| 10 | Wright | Angela | 1 | orthopedics | 2023-03-07 |
| 11 | Mitchel | Noah | 0 | neurology | 2023-10-01 |
| 12 | Rodriguez | Ella | 1 | ophthalmology | 2023-02-14 |
| 13 | Brooks | Liam | 0 | epidermiology | 2023-05-15 |
| 14 | Kim | Grace | 1 | EMERGENCY | 2023-07-15 |
| 15 | Murphy | Caleb | 0 | EMERGENCY | 2023-04-13 |
| 16 | Foster | Scarlett | 1 | ophthalmology | 2023-09-01 |
| 17 | Evans | Mason | 0 | EMERGENCY | 2023-12-19 |
| 18 | Turner | Lilly | 1 | neurology | 2023-10-04 |

18 rows in set (0.00 sec)

SELECT * FROM personnel;

| id | position | lastname | firstname | occupation |
|----|-------------------|-----------|-----------|---------------|
| 1 | Doctor | Chang | Logan | extraction |
| 2 | Doctor | Williams | Chloe | allergy test |
| 3 | Office assistant | Stewart | Harper | paperwork |
| 4 | Medical assistant | Rivera | Benjamin | EMERGENCY |
| 5 | Doctor | Morgan | Zoe | orthopedics |
| 6 | Doctor | Carther | Elijah | dermatology |
| 7 | Medical assistant | Jordan | Samuel | ultrasound |
| 8 | Doctor | Price | Avery | ophthalmology |
| 9 | Doctor | Mitchell | Aria | angioplasty |
| 10 | Doctor | Baker | Henry | cardiology |
| 11 | Medical assistant | Baker | Olivia | allergy test |
| 12 | Doctor | Rodriguez | Carlos | biopsy |
| 13 | Doctor | Patel | Rohan | radiotherapy |
| 14 | Medical assistant | Hayes | Jackson | EMERGENCY |
| 15 | Doctor | Taylor | Morgan | pneumology |
| 16 | Doctor | Chang | Jasmine | hematology |
| 17 | Doctor | Turner | Wyatt | epidermiology |

17 rows in set (0.00 sec)

7. Formulate 15 queries. (to specify what each query does)

1. ORDER THE PRICES FROM CONSULTATIONS:

```
SELECT name, price  
FROM consultations  
ORDER BY price;
```

```
mysql> SELECT name, price
-> FROM consultations
-> ORDER BY price;
+-----+-----+
| name          | price |
+-----+-----+
| allergy_test  | 95    |
| ultrasound    | 210   |
| EKG           | 220   |
| epidermiology | 230   |
| dermatology   | 270   |
| extraction    | 325   |
| cardiology    | 350   |
| hematology    | 350   |
| neurology     | 350   |
| orthopedics   | 350   |
| ophthalmology | 400   |
| EMERGENCY     | 435   |
| pneumology    | 435   |
| radiotherapy  | 500   |
| angioplasty   | 1360  |
| biopsy        | 4500  |
| abdominoplasty | 15500 |
+-----+-----+
17 rows in set (0.00 sec)
```

2. MAX PRICE OF CONSULTATION

```
SELECT MAX(price)
FROM consultations;
```

```
mysql> SELECT MAX(price)
-> FROM consultations;
+-----+
| MAX(price) |
+-----+
| 15500      |
+-----+
1 row in set (0.00 sec)
```

3. FIND THE AVERAGE PRICE OF CONSULTATION

```
SELECT AVG(price)
FROM consultations;
```

```
mysql> SELECT AVG(price)
-> FROM consultations;
+-----+
| AVG(price) |
+-----+
| 1522.3529411764705 |
+-----+
1 row in set (0.00 sec)
```


4. LIST AND ORDER ALPHABETICALLY THE CONSULTATIONS BETWEEN 200 AND 400

```
SELECT name, price  
FROM consultations  
WHERE price BETWEEN 200 and 400  
ORDER BY price ASC;
```

```
mysql> SELECT name, price  
-> FROM consultations  
-> WHERE price BETWEEN 200 and 400  
-> ORDER BY price ASC;  
+-----+-----+  
| name          | price |  
+-----+-----+  
| ultrasound    | 210   |  
| EKG           | 220   |  
| epidermiology | 230   |  
| dermatology   | 270   |  
| extraction    | 325   |  
| cardiology    | 350   |  
| hematology    | 350   |  
| neurology     | 350   |  
| orthopedics   | 350   |  
| ophthalmology | 400   |  
+-----+-----+  
10 rows in set (0.00 sec)
```

5. COUNT THE EMERGENCIES

```
SELECT COUNT(*)  
FROM patients  
WHERE consultation_done='EMERGENCY';
```

```
mysql> SELECT COUNT(*)  
-> FROM patients  
-> WHERE consultation_done='EMERGENCY';  
+-----+  
| COUNT(*) |  
+-----+  
| 4        |  
+-----+  
1 row in set (0.00 sec)
```

6. WHICH PEOPLE HAD AN EMERGENCY

```
SELECT *  
FROM patients  
WHERE consultation_done IN('EMERGENCY');
```

```
mysql> SELECT *  
-> FROM patients  
-> WHERE consultation_done IN('EMERGENCY');
```

| client_id | lastname | firstname | gender | consultation_done | date_of_consultation |
|-----------|----------|-----------|--------|-------------------|----------------------|
| 8 | Nuhan | Isabella | 1 | EMERGENCY | 2023-10-04 |
| 14 | Kim | Grace | 1 | EMERGENCY | 2023-07-15 |
| 15 | Murphy | Caleb | 0 | EMERGENCY | 2023-04-13 |
| 17 | Evans | Mason | 0 | EMERGENCY | 2023-12-19 |

```
4 rows in set (0.00 sec)
```

7. LIST ALL THE CONSULTATIONS DONE

```
SELECT name FROM consultations  
INNER JOIN patients  
ON name = consultation_done;
```

```
mysql> select name from consultations  
-> inner join patients  
-> on name = consultation_done;
```

| name |
|---------------|
| cardiology |
| dermatology |
| dermatology |
| EKG |
| EMERGENCY |
| EMERGENCY |
| EMERGENCY |
| EMERGENCY |
| epidermiology |
| epidermiology |
| epidermiology |
| extraction |
| neurology |
| neurology |
| ophthalmology |
| ophthalmology |
| orthopedics |
| radiotherapy |

```
18 rows in set (0.00 sec)
```

8. LIST AND ORDER BY LAST NAME THE FEMALE PATIENTS

```
SELECT lastname, firstname  
FROM patients  
WHERE gender = 1  
ORDER BY lastname ASC;
```

```
mysql> SELECT lastname, firstname  
-> FROM patients  
-> WHERE gender = 1  
-> ORDER BY lastname ASC;  
+-----+-----+  
| lastname | firstname |  
+-----+-----+  
| Donovan  | Ava       |  
| Foster   | Scarlett  |  
| Harper   | Mia       |  
| Kim      | Grace     |  
| Martinez | Sophia    |  
| Nuhan    | Isabella  |  
| Rodriguez| Ella      |  
| Turner   | Lilly     |  
| Wright   | Angela    |  
+-----+-----+  
9 rows in set (0.00 sec)
```

9. HOW MUCH DID THE PATIENTS PAY?

```
SELECT lastname, firstname, consultation_done, price  
FROM patients, consultations  
WHERE consultation_done = name;
```

```
mysql> select lastname, firstname, consultation_done, price
-> from patients, consultations
-> where consultation_done = name;
```

| lastname | firstname | consultation_done | price |
|-----------|-----------|-------------------|-------|
| Donovan | Ava | cardiology | 350 |
| Anderson | Oliver | dermatology | 270 |
| Thompson | Lucas | dermatology | 270 |
| Harper | Mia | EKG | 220 |
| Nuhan | Isabella | EMERGENCY | 435 |
| Kim | Grace | EMERGENCY | 435 |
| Murphy | Caleb | EMERGENCY | 435 |
| Evans | Mason | EMERGENCY | 435 |
| Reynolds | Ethan | epidermiology | 230 |
| Williams | Adam | epidermiology | 230 |
| Brooks | Liam | epidermiology | 230 |
| Patel | Jackson | extraction | 325 |
| Mitchel | Noah | neurology | 350 |
| Turner | Lilly | neurology | 350 |
| Rodriguez | Ella | ophthalmology | 400 |
| Foster | Scarlett | ophthalmology | 400 |
| Wright | Angela | orthopedics | 350 |
| Martinez | Sophia | radiotherapy | 500 |

```
18 rows in set (0.00 sec)
```

10. SELECT THE DATE AND TYPE OF CONSULTATION FOR CLIENT WITH ID = 4

```
SELECT date_of_consultation, consultation_done
FROM patients
WHERE client_id = 4;
```

```
mysql> SELECT date_of_consultation, consultation_done
-> FROM patients
-> WHERE client_id = 4;
```

| date_of_consultation | consultation_done |
|----------------------|-------------------|
| 2023-03-04 | cardiology |

```
1 row in set (0.00 sec)
```

11. LIST AND ORDER THE NAMES OF THE DOCTORS

```
SELECT lastname, firstname
FROM personnel
WHERE position LIKE 'Doctor'
ORDER BY lastname ASC, firstname ASC;
```

```
mysql> SELECT lastname, firstname
-> FROM personnel
-> WHERE position LIKE 'Doctor'
-> ORDER BY lastname ASC, firstname ASC;
```

| lastname | firstname |
|-----------|-----------|
| Baker | Henry |
| Carther | Elijah |
| Chang | Jasmine |
| Chang | Logan |
| Mitchell | Aria |
| Morgan | Zoe |
| Patel | Rohan |
| Price | Avery |
| Rodriguez | Carlos |
| Taylor | Morgan |
| Turner | Wyatt |
| Williams | Chloe |

12 rows in set (0.00 sec)

12. LIST THE NAMES THAT START WITH C AND END WITH G FROM PERSONNEL

```
SELECT *
FROM personnel
WHERE lastname LIKE 'C%g';
```

```
mysql> SELECT *
-> FROM personnel
-> WHERE lastname LIKE 'C%g';
```

| id | position | lastname | firstname | occupation |
|----|----------|----------|-----------|------------|
| 1 | Doctor | Chang | Logan | extraction |
| 16 | Doctor | Chang | Jasmine | hematology |

2 rows in set (0.00 sec)

13. LIST AND ORDER THE PERSONNEL WHO ARE NOT DOCTORS AND WHAT THEY DO

```
SELECT lastname, firstname, position, occupation
FROM personnel
WHERE position <> 'Doctor'
ORDER BY lastname ASC, firstname ASC;
```

```
mysql> SELECT lastname, firstname, position, occupation
-> FROM personnel
-> WHERE position <> 'Doctor'
-> ORDER BY lastname ASC, firstname ASC;
```

| lastname | firstname | position | occupation |
|----------|-----------|-------------------|--------------|
| Baker | Olivia | Medical assistant | allergy test |
| Hayes | Jackson | Medical assistant | EMERGENCY |
| Jordan | Samuel | Medical assistant | ultrasound |
| Rivera | Benjamin | Medical assistant | EMERGENCY |
| Stewart | Harper | Office assistant | paperwork |

5 rows in set (0.00 sec)

14. HOW MUCH DO THE DOCTORS CHARGE

```
SELECT lastname, firstname, price
FROM personnel, consultations
WHERE occupation = name;
```

```
mysql> select lastname, firstname, price
-> from personnel, consultations
-> where occupation = name;
```

| lastname | firstname | price |
|-----------|-----------|-------|
| Mitchell | Aria | 1360 |
| Rodriguez | Carlos | 4500 |
| Baker | Henry | 350 |
| Carther | Elijah | 270 |
| Rivera | Benjamin | 435 |
| Hayes | Jackson | 435 |
| Turner | Wyatt | 230 |
| Chang | Logan | 325 |
| Chang | Jasmine | 350 |
| Price | Avery | 400 |
| Morgan | Zoe | 350 |
| Taylor | Morgan | 435 |
| Patel | Rohan | 500 |
| Jordan | Samuel | 210 |

14 rows in set (0.00 sec)

15. LIST THE NAMES THAT START WITH B FROM PERSONNEL

```
SELECT *
FROM personnel
```


WHERE lastname LIKE 'B%';

```
mysql> SELECT *
      -> FROM personnel
      -> WHERE lastname LIKE 'B%';
+----+-----+-----+-----+-----+
| id | position          | lastname | firstname | occupation |
+----+-----+-----+-----+-----+
| 10 | Doctor            | Baker   | Henry     | cardiology |
| 11 | Medical assistant | Baker   | Olivia    | allergy test |
+----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

BONUS:

- MODIFY A RECORD:

UPDATE consultations SET price = '100' WHERE name = 'allergy_test';

```
mysql> update consultations set price = '100' where name = 'allergy_test';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from consultations;
+-----+-----+-----+
| name          | price | description          |
+-----+-----+-----+
| abdominoplasty | 15500 | procedure and recuperation |
| allergy_test   | 100   | procedure and interpretation |
| angioplasty    | 1360  | procedure and recuperation |
| biopsy         | 4500  | procedure            |
| cardiology     | 350   | exam and treatment    |
| dermatology    | 270   | examination and treatment |
| EKG            | 220   | procedure and interpretation |
| EMERGENCY      | 435   | examination          |
| epidermiology  | 230   | control              |
| extraction     | 325   | procedure            |
| hematology     | 350   | consult              |
| neurology      | 350   | consult              |
| ophthalmology  | 400   | examination and nterpretation |
| orthopedics    | 350   | consult              |
| pneumology     | 435   | consult and interpretation |
| radiotherapy   | 500   | consult and medication |
| ultrasound     | 210   | procedure and interpretation |
+-----+-----+-----+
17 rows in set (0.00 sec)
```

- DELETE A RECORD:

DELETE FROM personnel WHERE lastname = 'Chang';

```
mysql> select * from personnel;
```

| id | position | lastname | firstname | occupation |
|----|-------------------|-----------|-----------|---------------|
| 2 | Doctor | Williams | Chloe | allergy test |
| 3 | Office assistant | Stewart | Harper | paperwork |
| 4 | Medical assistant | Rivera | Benjamin | EMERGENCY |
| 5 | Doctor | Morgan | Zoe | orthopedics |
| 6 | Doctor | Carther | Elijah | dermatology |
| 7 | Medical assistant | Jordan | Samuel | ultrasound |
| 8 | Doctor | Price | Avery | ophthalmology |
| 9 | Doctor | Mitchell | Aria | angioplasty |
| 10 | Doctor | Baker | Henry | cardiology |
| 11 | Medical assistant | Baker | Olivia | allergy test |
| 12 | Doctor | Rodriguez | Carlos | biopsy |
| 13 | Doctor | Patel | Rohan | radiotherapy |
| 14 | Medical assistant | Hayes | Jackson | EMERGENCY |
| 15 | Doctor | Taylor | Morgan | pneumology |
| 17 | Doctor | Turner | Wyatt | epidermiology |

```
15 rows in set (0.00 sec)
```

- EMPTY A TABLE & INSERT OTHER RECORDS INTO IT

```
TRUNCATE TABLE personnel;  
SELECT * FROM personnel;
```

```
mysql> truncate table personnel;  
Query OK, 0 rows affected (0.03 sec)  
  
mysql> select * from personnel;  
Empty set (0.00 sec)
```

```
INSERT INTO personnel (position, lastname, firstname, occupation) VALUES  
( 'Doctor', 'Chang', 'Logan', 'extraction'),  
( 'Doctor', 'Williams', 'Chloe', 'allergy test'),  
( 'Office assistant', 'Stewart', 'Harper', 'paperwork'),  
( 'Medical assistant', 'Rivera', 'Benjamin', 'EMERGENCY'),  
( 'Doctor', 'Morgan', 'Zoe', 'orthopedics'),  
( 'Doctor', 'Carther', 'Elijah', 'dermatology'),  
( 'Medical assistant', 'Jordan', 'Samuel', 'ultrasound'),  
( 'Doctor', 'Price', 'Avery', 'ophthalmology'),  
( 'Doctor', 'Mitchell', 'Aria', 'angioplasty'),  
( 'Doctor', 'Baker', 'Henry', 'cardiology'),  
( 'Medical assistant', 'Baker', 'Olivia', 'allergy test'),  
( 'Doctor', 'Rodriguez', 'Carlos', 'biopsy'),  
( 'Doctor', 'Patel', 'Rohan', 'radiotherapy'),  
( 'Medical assistant', 'Hayes', 'Jackson', 'EMERGENCY'),  
( 'Doctor', 'Taylor', 'Morgan', 'pneumology'),  
( 'Doctor', 'Chang', 'Jasmine', 'hematology'),
```

```
('Doctor', 'Turner', 'Wyatt', 'epidermiology');
```

```
mysql> INSERT INTO personnel (position, lastname, firstname, occupation) VALUES  
-> ('Office assistant', 'Angel', 'Claire', 'paperwork'),  
-> ('Doctor', 'Morgan', 'Chloe', 'allergy test'),  
-> ('Doctor', 'Stewart', 'Allie', 'extraction'),  
-> ('Medical assistant', 'Rivera', 'Johnas', 'EMERGENCY'),  
-> ('Doctor', 'Morgan', 'Wyatt', 'orthopedics'),  
-> ('Medical assistant', 'Price', 'Elijah', 'dermatology'),  
-> ('Medical assistant', 'Jordan', 'Olivia', 'ultrasound'),  
-> ('Office assistant', 'Henry', 'Elijah', 'appointment'),  
-> ('Doctor', 'Rohan', 'Aria', 'angioplasty'),  
-> ('Doctor', 'Baker', 'Carlos', 'cardiology'),  
-> ('Doctor', 'Baker', 'Samuel', 'allergy test'),  
-> ('Medical assistant', 'Rodriguez', 'Carlos', 'biopsy'),  
-> ('Doctor', 'Patel', 'Mitchell', 'radiotherapy'),  
-> ('Doctor', 'Blue', 'Jackson', 'EMERGENCY'),  
-> ('Doctor', 'Taylor', 'Hayes', 'pneumology'),  
-> ('Medical assistant', 'Chang', 'Jasmine', 'hematology'),  
-> ('Office assistant', 'Turner', 'Zoe', 'reception');  
Query OK, 17 rows affected (0.00 sec)  
Records: 17 Duplicates: 0 Warnings: 0
```

```
SELECT * FROM personnel;
```

| id | position | lastname | firstname | occupation |
|----|-------------------|-----------|-----------|--------------|
| 1 | Office assistant | Angel | Claire | paperwork |
| 2 | Doctor | Morgan | Chloe | allergy test |
| 3 | Doctor | Stewart | Allie | extraction |
| 4 | Medical assistant | Rivera | Johnas | EMERGENCY |
| 5 | Doctor | Morgan | Wyatt | orthopedics |
| 6 | Medical assistant | Price | Elijah | dermatology |
| 7 | Medical assistant | Jordan | Olivia | ultrasound |
| 8 | Office assistant | Henry | Elijah | appointment |
| 9 | Doctor | Rohan | Aria | angioplasty |
| 10 | Doctor | Baker | Carlos | cardiology |
| 11 | Doctor | Baker | Samuel | allergy test |
| 12 | Medical assistant | Rodriguez | Carlos | biopsy |
| 13 | Doctor | Patel | Mitchell | radiotherapy |
| 14 | Doctor | Blue | Jackson | EMERGENCY |
| 15 | Doctor | Taylor | Hayes | pneumology |
| 16 | Medical assistant | Chang | Jasmine | hematology |
| 17 | Office assistant | Turner | Zoe | reception |

17 rows in set (0.00 sec)

- INSERT A NEW COLUMN INTO 1 OF 2 EXISTING TABLES

```
ALTER TABLE patients  
ADD COLUMN phone_number int(10)  
AFTER firstname;
```

```
mysql> alter table patients
    -> add column phone_number int(10)
    -> after firstname;
Query OK, 0 rows affected, 1 warning (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 1
```

SELECT * FROM patients;

```
mysql> describe patients;
+-----+-----+-----+-----+-----+-----+
| Field          | Type   | Null | Key | Default | Extra           |
+-----+-----+-----+-----+-----+-----+
| client_id      | int    | NO   | PRI | NULL    | auto_increment |
| lastname       | char(20) | NO   |     | NULL    |                 |
| firstname      | char(20) | NO   |     | NULL    |                 |
| phone_number   | int    | YES  |     | NULL    |                 |
| gender         | int    | NO   |     | NULL    |                 |
| consultation_done | char(20) | YES  | MUL | NULL    |                 |
| date_of_consultation | date   | NO   |     | NULL    |                 |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)
```

