




Lab 06 Documentation MYSQL – PHP


Anna Victoria Kerz – 300292572

- Database structure: ¹ Refer to footer for key references..


Patients

 patient_id
patient_name
patient_dob
 patient_breed_id
 patient_owner
patient_last_visit

Breeds

 breed_id
breed_name
breed_size

Owners

 owner_id
owner_name
owner_address
owner_city
owner_zipcode
owner_phone
owner_email
owner_account_balance

- SQL via command prompt:

To log in as root user, type the following command:

```
mysql -u root
```

If the log in is successful you will see a Welcome message and your console will show the your location for consequent commands as mysql>

```
C:\Users\victo>mysql -u root
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 56
Server version: 5.7.28 MySQL Community Server (GPL)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

- Source file selection:

A sql which contains the initial commands is given, which will be sourced from the command prompt.

¹ Icons made by [Freepik](https://www.flaticon.com) from www.flaticon.com



Primary Key



Foreign Key



Foreign Key in a table not represented in this Lab.

SQL > Filename: Lab06_AKe92572.sql

- **What does this file do?**

- 1- The database is dropped if it exists previously.
- 2- The database is created.
- 3- The tables are created:
 - ProductSale
 - Products
 - Customers

To specify the file that contains the commands for database and table creation type the following command:

```
mysql> source Lab06_AKe9257.sql
```

If the command is successful, you will see how many rows were affected by it:

```
mysql> source D:/Lab06_AKe92572.sql;
Query OK, 3 rows affected (0.06 sec)

Query OK, 1 row affected (0.00 sec)

Database changed
Query OK, 0 rows affected (0.02 sec)

Query OK, 0 rows affected (0.01 sec)

Query OK, 0 rows affected (0.01 sec)
```

- To see the tables and make sure they were created, type in the following commands:

To switch to the newly created database:

```
use $vet_AKe92572
```

Then, request the tables to be shown:

```
mysql> show tables;
```

If the creation was successful, it will show something like this:

```
+-----+
| Tables_in_$vet_ake92572 |
+-----+
| breeds                  |
| owners                  |
| patients                |
+-----+
3 rows in set (0.01 sec)
```

- Database CRUD operations:

Create: In this example, this is covered by running the following commands. Each command will insert entries to the three tables to populate them with data.

To insert values to the Patients table, type the following command:

```
INSERT INTO Patients VALUES
(0,'Max','2015-04-12', 5, 1, '2020-04-30'),
(0,'Buddy','2014-06-14', 3, 1, '2020-05-01'),
(0,'Bailey','2017-03-02', 1, 2, '2019-07-14'),
(0,'Bella','2011-08-12', 4, 3, '2016-01-13'),
(0,'Lucy','2011-12-19', 4, 5, '2018-07-17');
```

The result should show:

```
mysql> INSERT INTO Patients VALUES
-> (0, 'Max', '2015-04-12', 5, 1, '2020-04-30'),
-> (0, 'Buddy', '2014-06-14', 3, 1, '2020-05-01'),
-> (0, 'Bailey', '2017-03-02', 1, 2, '2019-07-14'),
-> (0, 'Bella', '2011-08-12', 4, 3, '2016-01-13'),
-> (0, 'Lucy', '2011-12-19', 4, 5, '2018-07-17');
Query OK, 5 rows affected (0.02 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

To insert values to the Breeds table, type the following command:

```
INSERT INTO Breeds VALUES
(0,'American Staffordshire Terrier','Large'),
(0,'Bearded Collie','Medium'),
(0,'Border Collie','Medium'),
(0,'English Bulldog','Medium'),
(0,'Cane Corso','Extra Large');
```

The result should show:

```
mysql> INSERT INTO Breeds VALUES
-> (0,'American Staffordshire Terrier', 'Large'),
-> (0,'Bearded Collie', 'Medium'),
-> (0,'Border Collie', 'Medium'),
-> (0,'English Bulldog', 'Medium'),
-> (0,'Cane Corso', 'Extra Large');
Query OK, 5 rows affected (0.00 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

To insert values to the Owners table, type the following command:

```
INSERT INTO Owners VALUES
(0,'Amber G Kirkland','733 Bank St','Vancouver','V0E
3B0',6137394584,'bms42kzrn0i@classesmail.com',512.41),
(0,'Janice J Rowe','1417 Blind Bay Road','Westwold','T7E
6B0',2503757019,'06ic5llt62bk@classesmail.com',0),
(0,'Tommy S Zito','1546 Yonge Street','Elko','V0B 1J0', 2505297390,'imldoe7nqp@meantinc.com',0),
(0,'Patricia W Blackburn','14 Bay Road','Crawford Bay','V0E
1B0',2502256123,'7v9xm13ij0a@fakemailgenerator.net',1971.12),
(0,'Jean A Ball','1972 Burdett Avenue','Victoria','V8Z
2J8',2504798988,'yg85z51p6w@powerencry.com',0),
```

```
(0, 'Rochelle L Pawlak', '669 Robson St', 'Vancouver', 'V6B 3K9', '6049742016', 'ecj323b5a78@groupbuff.com', 0);
```

The result should show:

```
mysql> INSERT INTO Owners VALUES
-> (0, 'Amber G Kirkland', '733 Bank St', 'Vancouver', 'V0E 3B0', '6137394584', 'bms42kzrn0i@classesmail.com', 512.41),
-> (0, 'Janice J Rowe', '1417 Blind Bay Road', 'Westwold', 'T7E 6B0', '2503757019', '06ic5llt62bk@classesmail.com', 0),
-> (0, 'Tommy S Zito', '1546 Yonge Street', 'Elko', 'V0B 1T0', '2505297390', 'imldoe7nqp@meantinc.com', 0),
-> (0, 'Patricia W Blackburn', '14 Bay Road', 'Crawford Bay', 'V0E 1B0', '2502256123', '7v9xm131j0a@fakemailgenerator.net', 1971.12),
-> (0, 'Jean A Ball', '1972 Burdett Avenue', 'Victoria', 'V8Z 2J8', '2504798988', 'yg85z51p6w@powerency.com', 0),
-> (0, 'Rochelle L Pawlak', '669 Robson St', 'Vancouver', 'V6B 3K9', '6049742016', 'ecj323b5a78@groupbuff.com', 0);
Query OK, 6 rows affected (0.00 sec)
Records: 6 Duplicates: 0 Warnings: 0
```

Update: To update an entry in a strong entity (Patients), type the following command. This will set Bailey's last visit date to today's date.

```
UPDATE Patients
SET patient_last_visit = CURDATE()
WHERE patient_id = 1002;
```

The result should show that one entry was modified:

```
mysql> UPDATE Patients
-> SET patient_last_visit = CURDATE()
-> WHERE patient_id = 1002;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

Select: The following command will join all three tables by the key identifiers, which in this case are: patient_id, breed_id and owner_id. It will display only 6 of the columns, which are defined at the beginning of the query.

To do this, enter the following command:

```
SELECT
p.patient_id, p.patient_name, p.patient_last_visit,
b.breed_name,
o.owner_phone, o.owner_account_balance
FROM Patients p
JOIN Breeds b ON p.patient_breed_id = b.breed_id
JOIN Owners o ON p.patient_owner = o.owner_id
ORDER BY p.patient_id;
```

It should display the following (note for Bailey, today's date is set as her last visit date)

patient_id	patient_name	patient_last_visit	breed_name	owner_phone	owner_account_balance
1000	Max	2020-04-30	Cane Corso	6137394584	512.41
1001	Buddy	2020-05-01	Border Collie	6137394584	512.41
1002	Bailey	2020-06-28	American Staffordshire Terrier	2503757019	0.00
1003	Bella	2016-01-13	English Bulldog	2505297390	0.00
1004	Lucy	2018-07-17	English Bulldog	2504798988	0.00

5 rows in set (0.01 sec)

Delete: Lastly, to delete Lucy (1004) from the Patients table, enter the following command:

```
DELETE FROM Patients WHERE patient_id = 1004;
```

After a confirmation, if the select query is ran again on the Patients table, Lucy should no longer appear.

```
mysql> SELECT * from Patients;
```

patient_id	patient_name	patient_dob	patient_breed_id	patient_owner	patient_last_visit
1000	Max	2015-04-12	5	1	2020-04-30
1001	Buddy	2014-06-14	3	1	2020-05-01
1002	Bailey	2017-03-02	1	2	2020-06-28
1003	Bella	2011-08-12	4	3	2016-01-13

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