

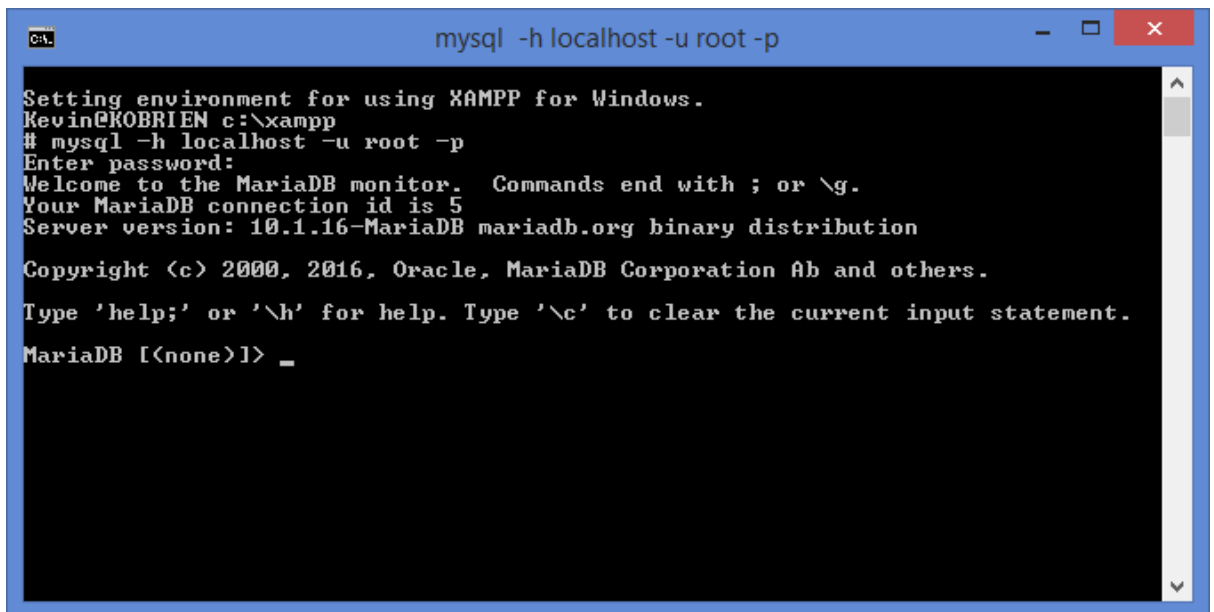
## First PHP Lab

For this and subsequent PHP labs, a database is required. The first exercise in this lab involves connecting to a database, creating a database, creating a table, and adding data to that table.

### Exercise 1 – Set up a Database

1. Connect to your database as the root user. If you are unsure how to do this, just run the following command from the command shell:

```
mysql -h localhost -u root -p
```



```
mysql -h localhost -u root -p

Setting environment for using XAMPP for Windows.
Kevin@KOBRIEN c:\xampp
# mysql -h localhost -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 5
Server version: 10.1.16-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2016, Oracle, MariaDB Corporation Ab and others.

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

MariaDB [(none)]> _
```

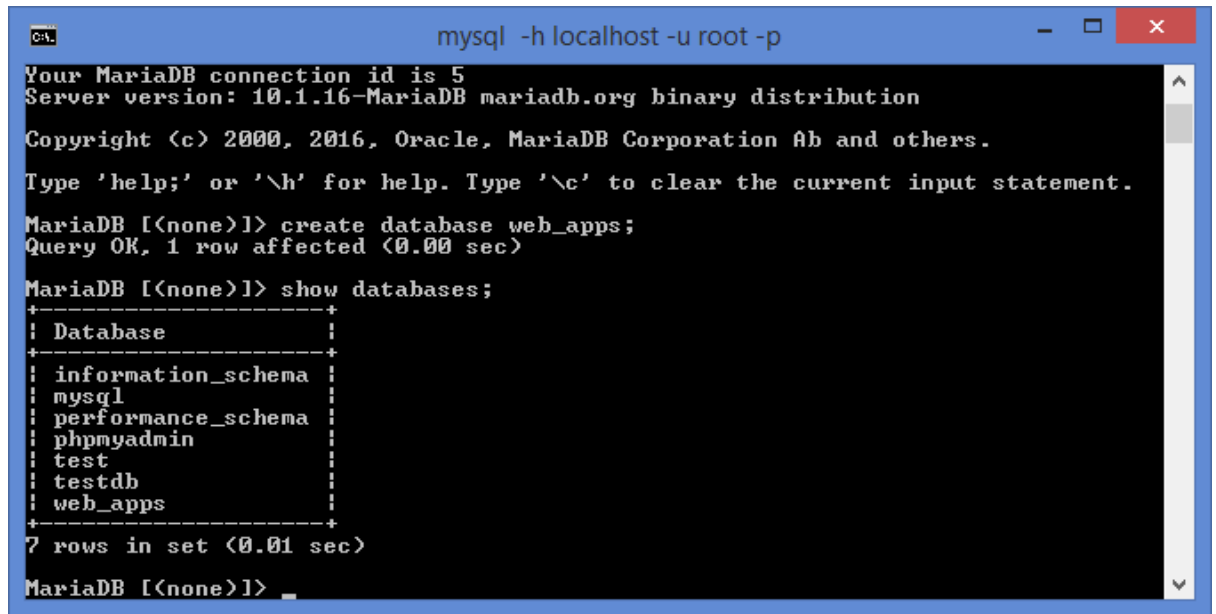
**Note 1:** mysql executable is located in the bin directory of your WAMP/MAMP/XAMPPS/LAMP installation. Should already be added as a path variable, but if not you will need to run the command from the bin directory.

**Note 2:** You will be prompted for a password. Typically, you just need to hit the enter key as it is not set. However, if you have it set already then provide that value. It is advisable to set the password if you have not done so already. See <http://dev.mysql.com/doc/refman/5.7/en/resetting-permissions.html> for instructions on setting or resetting password.

If you are unsure how to connect to the database, just ask your lecturer.

2. Once, connected, create a new database for the module. Just run the following command:

```
create database web_apps;
```



```
mysql -h localhost -u root -p
Your MariaDB connection id is 5
Server version: 10.1.16-MariaDB mariadb.org binary distribution
Copyright (c) 2000, 2016, Oracle, MariaDB Corporation Ab and others.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
MariaDB [(none)]> create database web_apps;
Query OK, 1 row affected (0.00 sec)

MariaDB [(none)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| phpmyadmin |
| test |
| testdb |
| web_apps |
+-----+
7 rows in set (0.01 sec)

MariaDB [(none)]> _
```

3. Once created, type the following command to use the database:

```
use web_apps;
```

4. Now create a table in the web\_apps database by running the following:

```
create table users(
  user_id int unsigned zerofill not null auto_increment primary key,
  firstname varchar(100),
  lastname varchar(100),
  username varchar(20),
  password char(40)
);
```

```
mysql -h localhost -u root -p

+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| phpmyadmin |
| test |
| testdb |
| web_apps |
+-----+
7 rows in set (0.01 sec)

MariaDB [(none)]> use web_apps;
Database changed
MariaDB [web_apps]> create table users(
-> user_id int,
-> firstname varchar(100),
-> lastname varchar(100),
-> username varchar(20),
-> password varchar(20)
-> );
Query OK, 0 rows affected (0.05 sec)

MariaDB [web_apps]>
```

5. Insert two records into the table. To do this just run the following commands:

```
insert into users(firstname,lastname,username) values('John','Smith','jsmith');
```

```
insert into users(firstname,lastname,username) values('Joe','Bloggs','jbloggs');
```

```
commit;
```

Note: Just confirm the data is inserted in the table. Run the following command:

```
select * from users;
```

```
mysql -h localhost -u root -p

MariaDB [web_apps]>
MariaDB [web_apps]>
MariaDB [web_apps]>
MariaDB [web_apps]>
MariaDB [web_apps]> insert into users(firstname,lastname,username) values('John'
,'Smith','jsmith');
Query OK, 1 row affected (0.00 sec)

MariaDB [web_apps]> insert into users(firstname,lastname,username) values('Joe',
'Bloggs','jbloggs');
Query OK, 1 row affected (0.00 sec)

MariaDB [web_apps]> commit;
Query OK, 0 rows affected (0.00 sec)

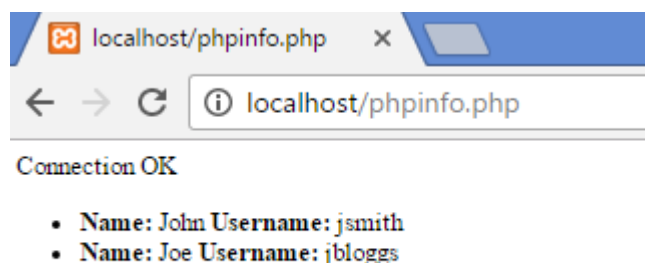
MariaDB [web_apps]> select * from users;
+-----+-----+-----+-----+-----+
| user_id | firstname | lastname | username | password |
+-----+-----+-----+-----+-----+
| 0000000001 | John | Smith | jsmith | NULL |
| 0000000002 | Joe | Bloggs | jbloggs | NULL |
+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

MariaDB [web_apps]>
```

## Exercise 2 – First Dynamic Web Page

This exercise aims to retrieve the information from the database table created in exercise 1, and display that information on a web page.

1. Make sure your database and web server are running.
2. Download the file phpinfo.zip from moodle which is included with this exercise.
3. Unzip phpinfo.zip and copy the decompressed file phpinfo.php to your web server (copy to htdocs folder if using xampp or www folder if using wamp. If you are not sure how to complete this step or are using a different web server then just ask your lecturer for assistance).
4. Now access phpinfo.php from your browser by entering the url localhost/phpinfo.php (amend this url if copied to a sub folder on your server).
5. You should see the following page which has retrieved the data from the users table and displayed it in a list:



6. Open phpinfo.php in a text editor and review the php code used to connect and retrieve the data from the database and how it is added to the web page.