MySQL

MySQL is a popular free database.

To enter MySQL, from the Linux Terminal window, type the following to login to the root account using the root password.

```
$ sudo mysql -u root -p
...
mysql> exit;
```

After you have created a new mysql user account, you can then login using the following

```
$ mysql -u useraccount -p ...
```

```
- -
Ubuntu [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
                                                                            t En (4)) 2:26 PM 以
 Terminal Terminal File Edit View Search Terminal Help
         🔞 🖨 🗊 enoch@enoch-VirtualBox: ~
        enoch@enoch-VirtualBox:~$ mysql -u root -p
        Enter password:
       Welcome to the MySQL monitor. Commands end with ; or \g.
        Your MySQL connection id is 7
        Server version: 5.7.21-0ubuntu0.16.04.1 (Ubuntu)
        Copyright (c) 2000, 2018, Oracle and/or its affiliates. All rights reserved.
        Oracle is a registered trademark of Oracle Corporation and/or its
        affiliates. Other names may be trademarks of their respective
        owners.
        Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
        mysql> show databases:
         Database
         information_schema
         mysql
         performance_schema
         sys
        4 rows in set (0.00 sec)
        mysql>
                                                                   🔞 🌀 🧬 🤌 🗐 🖳 👺 🔘 🚳 💽 Right Ctrl
```

MySQL Common Commands

MySQL commands **are not** case sensitive, however, the user identifiers that you create **are** case sensitive. In the examples below the mysql keywords are in CAPS.

Commands	Examples	
SHOW DATABASES	SHOW DATABASES;	
SHOW TABLES	SHOW TABLES;	
CREATE DATABASE	CREATE DATABASE sampleDB;	
USE	USE sampleDB;	
CREATE TABLE	CREATE TABLE Persons (PersonID INT NOT NULL, FirstName	
	VARCHAR(255), LastName VARCHAR(255), PRIMARY KEY (PersonID));	
	CREATE TABLE Devices (ID INT NOT NULL AUTO_INCREMENT PRIMARY KEY,	
	Mac VARCHAR(255), Description VARCHAR(255));	
DESCRIBE	DESCRIBE Persons;	
INSERT	INSERT INTO Persons (PersonID, FirstName, LastName) VALUES (1,	
	'Enoch', 'Hwang');	
SELECT	SELECT * FROM Persons;	
	SELECT LastName FROM Persons WHERE LastName = 'Hwang';	
UPDATE	UPDATE Persons SET FirstName = 'Windy' WHERE PersonID = 1;	
DELETE	DELETE FROM Persons WHERE PersonID = 1;	
ALTER	ALTER TABLE Persons ADD Age INT;	
	ALTER TABLE Persons DROP LASTNAME;	
DROP DATABASE	DROP DATABASE sampleDB;	
DROP table	DROP TABLE Persons;	
EXIT		

Administrative commands

Commands	Examples	
CREATE USER	CREATE USER test@localhost IDENTIFIED BY 'lsucs123';	
DROP USER	DROP USER test@localhost;	
GRANT ALL	GRANT ALL PRIVILEGES ON sampleDB.* TO test@localhost;	
PRIVILEGES	GRANT ALL PRIVILEGES ON `test%`.* TO test@localhost;	
FLUSH PRIVILEGES	FLUSH PRIVILEGES;	
REVOKE ALL	REVOKE ALL PRIVILEGES ON sampleDB.* FROM test@localhost;	
PRIVILEGES		
SHOW GRANTS	SHOW GRANTS FOR test@localhost;	

Examples	Comments
SELECT USER FROM MYSQL.USER;	List all users
GRANT ALL PRIVILEGES ON test.* TO	Can only create database named test.
test@localhost;	
GRANT ALL PRIVILEGES ON 'test%'.* TO	Can create any database with name starting with test.
test@localhost;	Note the back tick around 'test%'
REVOKE ALL PRIVILEGES ON *.* FROM	
TEST@LOCALHOST;	

To run a MySQL script name **script.sql**. The file is just a text file containing MySQL commands.

sudo mysql -u root -p < script.sql

or

mysql -u test -p < script.sql

Get the details on the commands $\underline{\text{here}}$.