

A decorative graphic on the left side of the slide, consisting of a network of white lines and circles on a teal background, resembling a circuit board or a neural network.

WEEK 5

INTRODUCTION TO USING MYSQL

STUDENT OBJECTIVES

- Upon completion of this video, you should be able to:
 - Get into and out of MySQL on a Linux machine.
 - Use 4 basic MySQL commands: show, drop, create and use
 - Create and drop a database using MySQL
 - Create and drop a table using MySQL
 - List at least 4 MySQL datatypes for attributes.
 - Add MySQL commands to a text file and then pipe those files into MySQL on Linux.
 - Collect the output from MySQL into a text file.
 - Using help in MySQL

RUNNING MYSQL ON YOUR VIRTUAL MACHINE - STARTING IT AND CREATING A DATABASE

MySQL commands:

- *From Virtual Machine to get into mysql:*
`mysql -u root -ppassword`
- *Commands once you are in:*
 - **SHOW DATABASES;**
 - **DROP DATABASE IF EXISTS vetdb;**
 - **CREATE DATABASE vetdb;**
 - **USE vetdb;**
 - **SHOW TABLES;**
 - **DROP TABLE tablename;**

NOTES – MySQL commands:

- **SHOW** lists all databases
- **DROP** deletes a database
- **CREATE** creates a database
- **USE** allows you to start using a database
- Commands are case insensitive, table names/attribute names are case sensitive!

SQL (STRUCTURED QUERY LANGUAGE) OVERVIEW

- SQL comprehensive language that is both a DDL and a DML (it creates the database and allows manipulation of the database)
- The statement to create the database initially is **CREATE DATABASE** *whateverdbname*

NOTE: You should only have to do once to create the database.

- We will walk through an actual example from MySQL to illustrate the basic SQL commands.

DATA TYPES IN MYSQL

<http://www.w3resource.com/mysql/mysql-data-types.php>

BASIC DDL SQL COMMANDS:

Creating and Deleting Tables:

```
CREATE TABLE TableName (Attr1 type NOT  
NULL, Attr2 type, Attr3 type, PRIMARY KEY  
(Attr1)) ;
```

Example:

```
CREATE TABLE owner (firstname VARCHAR(20), lastname  
VARCHAR(20), ownerid INT NOT NULL, PRIMARY KEY  
(ownerid));
```

```
DROP TABLE TableName;
```

PIPING COMMANDS INTO YOUR VIRTUAL MACHINE

- Log onto your virtual machine
- Create a file of commands in a .txt file
- Enter this command:

```
sudo mysql --verbose -pyourpassword < script1.txt > outputscript1.txt 2>&1
```

NEED HELP

- Type ?

```
mysql> ?

For information about MySQL products and services, visit:
  http://www.mysql.com/
For developer information, including the MySQL Reference Manual, visit:
  http://dev.mysql.com/
To buy MySQL Enterprise support, training, or other products, visit:
  https://shop.mysql.com/

List of all MySQL commands:
Note that all text commands must be first on line and end with ';'
?      (\?) Synonym for 'help'.
clear  (\c) Clear the current input statement.
connect (\r) Reconnect to the server. Optional arguments are db and host.
delimiter (\d) Set statement delimiter.
edit    (\e) Edit command with $EDITOR.
ego     (\G) Send command to mysql server, display result vertically.
exit    (\q) Exit mysql. Same as quit.
go      (\g) Send command to mysql server.
help    (\h) Display this help.
nopager (\n) Disable pager, print to stdout.
notee   (\t) Don't write into outfile.
pager   (\P) Set PAGER [to_pager]. Print the query results via PAGER.
print   (\p) Print current command.
prompt  (\R) Change your mysql prompt.
quit    (\q) Quit mysql.
rehash  (\#) Rebuild completion hash.
source  (\.) Execute an SQL script file. Takes a file name as an argument.
status  (\s) Get status information from the server.
system  (\!) Execute a system shell command.
tee      (\T) Set outfile [to_outfile]. Append everything into given outfile.
use     (\u) Use another database. Takes database name as argument.
charset (\C) Switch to another charset. Might be needed for processing binlog with multi-byte charsets.
warnings (\W) Show warnings after every statement.
nowarning (\w) Don't show warnings after every statement.

For server side help, type 'help contents'

mysql> █
```