

Database Components:

Tables
Columns
Records/Rows

DB server CLI

- show databases;
- use dbName
- show tables

Common CMDs

- Alter
- Backup
- \c (cancel input)
- Create
- Delete
- Describe
- Drop (tables)
- Insert (add record to tbl)

MYSQL DATA TYPES

- **VARCHAR** – string with max length
- **CHAR** – string with fixed length
- **BINARY, BYTE** – store binary data
- **Varbinary** – Up to 65536 bytes
- **BLOBS** – binary large object
- **FLOAT**: 32bit dec. number w sign
- **DOUBLE**: 64bit dec number w sign
- **INT** - integer

LOAD DATA FROM FILES

```
LOAD DATA INFILE 'data.csv' INTO TABLE  
tbl_name  
FIELDS TERMINATED BY ',' ENCLOSED BY ''''  
LINES TERMINATED BY '\r\n' IGNORE 1 LINES  
(@var1, @var2) set colname1=@col1,  
colname3=@var2
```

(grey text only applies if your file's columns
don't match the table)

WRITE QUERY INTO FILE

```
SELECT col1,...,coln FROM TABLE [order by group  
by etc] into outfile 'filename.csv' FIELDS  
TERMINATED BY ',' ENCLOSED BY '''' LINES  
TERMINATED BY '\r\n';  
eg: SELECT * FROM transactions INTO OUTFILE  
'test.csv' FIELDS TERMINATED BY ',' LINES  
TERMINATED BY '\r\n';
```

GRANTING PERMISSIONS

"GRANT PRIVILEGES ON database.object
TO 'username'@'hostname' IDENTIFIED
BY 'password'

GRANT PRIVILEGES ON testDB.* to
'catMiller'@'localhost' BY '____(pass)'

RECIPES:

Modifying column data type:

```
ALTER TABLE tblname MODIFY  
COLUMN colname newType(newlen)
```

Modifying column name:

```
ALTER TABLE tblname CHANGE  
COLUMN oldname newname;
```

Getting Data out:

```
SELECT * FROM tblname  
SELECT colname1, colname2  
FROM tblname;
```

Insert Example:

```
INSERT INTO tblname (colname1, colname2, ..., colnamex) VALUES ("val1", "val2",..., "valx");
```

Creating Table

```
mysql> create table transactions (  
-> id INT UNSIGNED NOT NULL AUTO_INCREMENT KEY,  
-> sid char(5) NOT NULL,  
-> donation FLOAT NOT NULL) ENGINE MyISAM;  
Query OK, 0 rows affected (0.03 sec)
```