(source : https://en.wikibooks.org/wiki/MySQL/CheatSheet)

**MySQL/CheatSheet**

**Connect/Disconnect**

mysql -h <host> -u <user> -p<passwd>

mysql -h <host> -u <user> -p

Enter password: \*\*\*\*\*\*\*\*

mysql -u user -p

mysql

mysql -h <host> -u <user> -p <Database>

**Query**

SELECT \* FROM table

SELECT \* FROM table1, table2, ...

SELECT field1, field2, ... FROM table1, table2, ...

SELECT ... FROM ... WHERE condition

SELECT ... FROM ... WHERE condition GROUP BY field

SELECT ... FROM ... WHERE condition GROUP BY field HAVING condition2

SELECT ... FROM ... WHERE condition ORDER BY field1, field2

SELECT ... FROM ... WHERE condition ORDER BY field1, field2 DESC

SELECT ... FROM ... WHERE condition LIMIT 10

SELECT DISTINCT field1 FROM ...

SELECT DISTINCT field1, field2 FROM ...

SELECT ... FROM t1 JOIN t2 ON t1.id1 = t2.id2 WHERE condition

SELECT ... FROM t1 LEFT JOIN t2 ON t1.id1 = t2.id2 WHERE condition

SELECT ... FROM t1 JOIN (t2 JOIN t3 ON ...) ON ...

SELECT ... FROM t1 JOIN t2 USING(id) WHERE condition

**Conditionals**

field1 = value1

field1 <> value1

field1 LIKE 'value \_ %'

field1 IS NULL

field1 IS NOT NULL

field1 IN (value1, value2)

field1 NOT IN (value1, value2)

condition1 AND condition2

condition1 OR condition2

**Data Manipulation**

INSERT INTO table1 (field1, field2, ...) VALUES (value1, value2, ...)

INSERT table1 SET field1=value\_1, field2=value\_2 ...

LOAD DATA INFILE '/tmp/mydata.txt' INTO TABLE table1

FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"' ESCAPED BY '\\'

DELETE FROM table1 / TRUNCATE table1

DELETE FROM table1 WHERE condition

-- join:

DELETE FROM table1, table2 WHERE table1.id1 = table2.id2 AND condition

UPDATE table1 SET field1=new\_value1 WHERE condition

-- join:

UPDATE table1, table2 SET field1=new\_value1, field2=new\_value2, ...

WHERE table1.id1 = table2.id2 AND condition

**Browsing**

SHOW DATABASES

SHOW TABLES

SHOW FIELDS FROM table / SHOW COLUMNS FROM table / DESCRIBE table / DESC table / EXPLAIN table

SHOW CREATE TABLE table

SHOW CREATE TRIGGER trigger

SHOW TRIGGERS LIKE '%update%'

SHOW PROCESSLIST

KILL process\_number

SELECT table\_name, table\_rows FROM INFORMATION\_SCHEMA.TABLES WHERE TABLE\_SCHEMA = '\*\*yourdbname\*\*';

$ mysqlshow

$ mysqlshow database

**Create / delete / select / alter database**

CREATE DATABASE [IF NOT EXISTS] mabase [CHARACTER SET charset] [COLLATE collation]

CREATE DATABASE mabase CHARACTER SET utf8

DROP DATABASE mabase

USE mabase

ALTER DATABASE mabase CHARACTER SET utf8

**Create/delete/modify table**

CREATE TABLE table (field1 type1, field2 type2, ...)

CREATE TABLE table (field1 type1 unsigned not null auto\_increment, field2 type2, ...)

CREATE TABLE table (field1 type1, field2 type2, ..., INDEX (field))

CREATE TABLE table (field1 type1, field2 type2, ..., PRIMARY KEY (field1))

CREATE TABLE table (field1 type1, field2 type2, ..., PRIMARY KEY (field1, field2))

CREATE TABLE table1 (fk\_field1 type1, field2 type2, ...,

FOREIGN KEY (fk\_field1) REFERENCES table2 (t2\_fieldA)

[ON UPDATE] [CASCADE|SET NULL|RESTRICT]

[ON DELETE] [CASCADE|SET NULL|RESTRICT])

CREATE TABLE table1 (fk\_field1 type1, fk\_field2 type2, ...,

FOREIGN KEY (fk\_field1, fk\_field2) REFERENCES table2 (t2\_fieldA, t2\_fieldB))

CREATE TABLE table IF NOT EXISTS (...)

CREATE TABLE new\_tbl\_name LIKE tbl\_name

[SELECT ... FROM tbl\_name ...]

CREATE TEMPORARY TABLE table (...)

CREATE table new\_table\_name as SELECT [ \*|column1, column2 ] FROM table\_name

DROP TABLE table

DROP TABLE IF EXISTS table

DROP TABLE table1, table2, ...

DROP TEMPORARY TABLE table

ALTER TABLE table MODIFY field1 type1

ALTER TABLE table MODIFY field1 type1 NOT NULL ...

ALTER TABLE table CHANGE old\_name\_field1 new\_name\_field1 type1

ALTER TABLE table CHANGE old\_name\_field1 new\_name\_field1 type1 NOT NULL ...

ALTER TABLE table ALTER field1 SET DEFAULT ...

ALTER TABLE table ALTER field1 DROP DEFAULT

ALTER TABLE table ADD new\_name\_field1 type1

ALTER TABLE table ADD new\_name\_field1 type1 FIRST

ALTER TABLE table ADD new\_name\_field1 type1 AFTER another\_field

ALTER TABLE table DROP field1

ALTER TABLE table ADD INDEX (field);

ALTER TABLE table ADD PRIMARY KEY (field);

-- Change field order:

ALTER TABLE table MODIFY field1 type1 FIRST

ALTER TABLE table MODIFY field1 type1 AFTER another\_field

ALTER TABLE table CHANGE old\_name\_field1 new\_name\_field1 type1 FIRST

ALTER TABLE table CHANGE old\_name\_field1 new\_name\_field1 type1 AFTER another\_field

ALTER TABLE old\_name RENAME new\_name;

**Keys**

CREATE TABLE table (..., PRIMARY KEY (field1, field2))

CREATE TABLE table (..., FOREIGN KEY (field1, field2) REFERENCES table2 (t2\_field1, t2\_field2))

ALTER TABLE table ADD PRIMARY KEY (field);

ALTER TABLE table ADD CONSTRAINT constraint\_name PRIMARY KEY (field, field2);

**create/modify/drop view**

CREATE VIEW view AS SELECT ... FROM table WHERE ...

**Privileges**

CREATE USER 'user'@'localhost' IDENTIFIED BY 'password';

GRANT ALL PRIVILEGES ON base.\* TO 'user'@'localhost' IDENTIFIED BY 'password';

GRANT SELECT, INSERT, DELETE ON base.\* TO 'user'@'localhost' IDENTIFIED BY 'password';

REVOKE ALL PRIVILEGES ON base.\* FROM 'user'@'host'; -- one permission only

REVOKE ALL PRIVILEGES, GRANT OPTION FROM 'user'@'host'; -- all permissions

SET PASSWORD = PASSWORD('new\_pass')

SET PASSWORD FOR 'user'@'host' = PASSWORD('new\_pass')

SET PASSWORD = OLD\_PASSWORD('new\_pass')

DROP USER 'user'@'host'

**Main data types**

TINYINT (1o: -127+128)

SMALLINT (2o: +-65 000)

MEDIUMINT (3o: +-16 000 000)

INT (4o: +-2 000 000 000)

BIGINT (8o: +-9.10^18)

Precise interval: -(2^(8\*N-1)) -> (2^8\*N)-1

/!\ INT(2) = "2 digits displayed" -- NOT "number with 2 digits max"

INT NOT NULL auto\_increment PRIMARY KEY -- auto-counter for PK

FLOAT(M,D) DOUBLE(M,D) FLOAT(D=0->53)

/!\ 8,3 -> 12345,678 -- NOT 12345678,123!

TIME (HH:MM) YEAR (AAAA) DATE (AAAA-MM-JJ) DATETIME (AAAA-MM-JJ HH:MM; années 1000->9999)

TIMESTAMP (like DATETIME, but 1970->2038, compatible with Unix)

VARCHAR (single-line; explicit size)

TEXT (multi-lines; max size=65535)

BLOB (binary; max size=65535)

Variants for TEXT&BLOB: TINY (max=255) MEDIUM (max=~16000) LONG (max=4Go)

Ex: VARCHAR(32), TINYTEXT, LONGBLOB, MEDIUMTEXT

ENUM ('value1', 'value2', ...) -- (default NULL, or '' if NOT NULL)

**Forgot root password?**

$ /etc/init.d/mysql stop

$ mysqld\_safe --skip-grant-tables &

$ mysql # on another terminal

mysql> UPDATE mysql.user SET password=PASSWORD('nouveau') WHERE user='root';

## Kill mysqld\_safe from the terminal, using Control + \

$ /etc/init.d/mysql start

**Repair tables after unclean shutdown**

mysqlcheck --all-databases

mysqlcheck --all-databases --fast

**Loading data**

mysql> SOURCE input\_file

$ mysql database < filename-20120201.sql

$ cat filename-20120201.sql | mysql database