

# MySQL

I am using MySQL 5.1. As a rookie, here are some basic commands I feel useful to know.

## Some basic mysql commands

Use mysql client to access the database.

```
$ mysql -u database-user -p
```

Show databases

```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mytest    |
| mysql     |
| phpmyadmin |
+-----+
4 rows in set (0.00 sec)
```

Change to a database

```
mysql> use mytest;
```

Show tables

```
mysql> show tables;
```

Show a table structure

```
mysql> describe table-name;
```

List procedures

```
mysql> select ROUTINE_NAME from information_schema.ROUTINES;
```

Show a view or procedure's definition

```
mysql> SHOW CREATE VIEW view-name;
mysql> SHOW CREATE PROCEDURE procedure-name;
```

or

```
mysql> select ROUTINE_DEFINITION from information_schema.ROUTINES where ROUTINE_NAME='procedure-name';
```

Show errors or warnings of just executed command

```
mysql> SHOW WARNINGS;
mysql> SHOW ERRORS;
```

Kill a sql process

To kill a heavy sql process: find the id of that process and kill it

```
mysql> SHOW FULL PROCESSLIST;
mysql> KILL theprocessid;
```

## Some useful SQL commands

Find Duplicates of a field set

```
mysql> select *, count(*) as count from table-name group by field1, field2, ... having count(*) >1;
```

Get median generally

There are some useful **group by** functions in MySQL, like **avg()**, **std()**, **max()** and so on, but there is not a median function. Following SQL statement is a general way to achieve this purpose

```
SELECT m.name, avg(m.medians) medians from (  
  SELECT x.name, x.val medians  
  FROM A x, A y  
  WHERE x.name=y.name  
  GROUP BY x.name, x.val  
  HAVING SUM(y.val <= x.val) >= COUNT(*)/2  
  AND SUM(y.val >= x.val) >= COUNT(*)/2  
)AS m group by m.name;
```

Save SQL results in a csv file,

```
SELECT ...  
FROM ...  
INTO OUTFILE '/tmp/sqlresults.csv'  
  FIELDS TERMINATED BY ','  
  OPTIONALLY ENCLOSED BY '"'  
  ESCAPED BY '\\'  
  LINES TERMINATED BY '\\n';
```