# MySQL Cheat Sheet

> Help with SQL commands to interact with a MySQL database

## MySQL Locations

\* Mac \*/usr/local/mysql/bin\*

\* Windows \*/Program Files/MySQL/MySQL \_version\_/bin\*

\* Xampp \*/xampp/mysql/bin\*

## Add mysql to your PATH

```bash

# Current Session

export PATH=${PATH}:/usr/local/mysql/bin

# Permanantly

echo 'export PATH="/usr/local/mysql/bin:$PATH"' >> ~/.bash\_profile

```

On Windows - https://www.qualitestgroup.com/resources/knowledge-center/how-to-guide/add-mysql-path-windows/

## Login

```bash

mysql -u root -p

```

## Show Users

```sql

SELECT User, Host FROM mysql.user;

```

## Create User

```sql

CREATE USER 'someuser'@'localhost' IDENTIFIED BY 'somepassword';

```

## Grant All Priveleges On All Databases

```sql

GRANT ALL PRIVILEGES ON \* . \* TO 'someuser'@'localhost';

FLUSH PRIVILEGES;

```

## Show Grants

```sql

SHOW GRANTS FOR 'someuser'@'localhost';

```

## Remove Grants

```sql

REVOKE ALL PRIVILEGES, GRANT OPTION FROM 'someuser'@'localhost';

```

## Delete User

```sql

DROP USER 'someuser'@'localhost';

```

## Exit

```sql

exit;

```

## Show Databases

```sql

SHOW DATABASES

```

## Create Database

```sql

CREATE DATABASE acme;

```

## Delete Database

```sql

DROP DATABASE acme;

```

## Select Database

```sql

USE acme;

```

## Create Table

```sql

CREATE TABLE users(

id INT AUTO\_INCREMENT,

first\_name VARCHAR(100),

last\_name VARCHAR(100),

email VARCHAR(50),

password VARCHAR(20),

location VARCHAR(100),

dept VARCHAR(100),

is\_admin TINYINT(1),

register\_date DATETIME,

PRIMARY KEY(id)

);

```

## Delete / Drop Table

## Diffrence among Delete / Drop /Truncate

SQL DROP statement is used to delete or remove indexes from a table in the database.

“If you want to delete or drop an existing database in a SQL schema, you can use SQL DROP Database”

“The DELETE statement is used to delete rows from a table. If you want to remove a specific row from a table you should use WHERE condition.”

“A truncate SQL statement is used to remove all rows (complete data) from a table. It is similar to the DELETE statement with no WHERE clause.”

```sql

DROP TABLE tablename;

```

## Show Tables

```sql

SHOW TABLES;

```

## Insert Row / Record

```sql

INSERT INTO users (first\_name, last\_name, email, password, location, dept, is\_admin, register\_date) values ('Brad', 'Traversy', 'brad@gmail.com', '123456','Massachusetts', 'development', 1, now());

```

## Insert Multiple Rows

```sql

INSERT INTO users (first\_name, last\_name, email, password, location, dept, is\_admin, register\_date) values ('Fred', 'Smith', 'fred@gmail.com', '123456', 'New York', 'design', 0, now()), ('Sara', 'Watson', 'sara@gmail.com', '123456', 'New York', 'design', 0, now()),('Will', 'Jackson', 'will@yahoo.com', '123456', 'Rhode Island', 'development', 1, now()),('Paula', 'Johnson', 'paula@yahoo.com', '123456', 'Massachusetts', 'sales', 0, now()),('Tom', 'Spears', 'tom@yahoo.com', '123456', 'Massachusetts', 'sales', 0, now());

```

## Select

```sql

SELECT \* FROM users;

SELECT first\_name, last\_name FROM users;

```

## Where Clause

```sql

SELECT \* FROM users WHERE location='Massachusetts';

SELECT \* FROM users WHERE location='Massachusetts' AND dept='sales';

SELECT \* FROM users WHERE is\_admin = 1;

SELECT \* FROM users WHERE is\_admin > 0;

```

## Delete Row

```sql

DELETE FROM users WHERE id = 6;

```

## Update Row

```sql

UPDATE users SET email = 'freddy@gmail.com' WHERE id = 2;

```

## Add New Column

```sql

ALTER TABLE users ADD age VARCHAR(3);

```

## Modify Column

```sql

ALTER TABLE users MODIFY COLUMN age INT(3);

```

## Order By (Sort)

```sql

SELECT \* FROM users ORDER BY last\_name ASC;

SELECT \* FROM users ORDER BY last\_name DESC;

```

## Concatenate Columns

```sql

SELECT CONCAT(first\_name, ' ', last\_name) AS 'Name', dept FROM users;

```

## Select Distinct Rows

```sql

SELECT DISTINCT location FROM users;

```

## Between (Select Range)

```sql

SELECT \* FROM users WHERE age BETWEEN 20 AND 25;

```

## Like (Searching)

```sql

SELECT \* FROM users WHERE dept LIKE 'd%';

SELECT \* FROM users WHERE dept LIKE 'dev%';

SELECT \* FROM users WHERE dept LIKE '%t';

SELECT \* FROM users WHERE dept LIKE '%e%';

```

## Not Like

```sql

SELECT \* FROM users WHERE dept NOT LIKE 'd%';

```

## IN

```sql

SELECT \* FROM users WHERE dept IN ('design', 'sales');

```

## Create & Remove Index

```sql

CREATE INDEX LIndex On users(location);

DROP INDEX LIndex ON users;

```

## New Table With Foreign Key (Posts)

```sql

CREATE TABLE posts(

id INT AUTO\_INCREMENT,

user\_id INT,

title VARCHAR(100),

body TEXT,

publish\_date DATETIME DEFAULT CURRENT\_TIMESTAMP,

PRIMARY KEY(id),

FOREIGN KEY (user\_id) REFERENCES users(id)

);

```

## Add Data to Posts Table

```sql

INSERT INTO posts(user\_id, title, body) VALUES (1, 'Post One', 'This is post one'),(3, 'Post Two', 'This is post two'),(1, 'Post Three', 'This is post three'),(2, 'Post Four', 'This is post four'),(5, 'Post Five', 'This is post five'),(4, 'Post Six', 'This is post six'),(2, 'Post Seven', 'This is post seven'),(1, 'Post Eight', 'This is post eight'),(3, 'Post Nine', 'This is post none'),(4, 'Post Ten', 'This is post ten');

```

## INNER JOIN

```sql

SELECT

users.first\_name,

users.last\_name,

posts.title,

posts.publish\_date

FROM users

INNER JOIN posts

ON users.id = posts.user\_id

ORDER BY posts.title;

```

## New Table With 2 Foriegn Keys

```sql

CREATE TABLE comments(

id INT AUTO\_INCREMENT,

post\_id INT,

user\_id INT,

body TEXT,

publish\_date DATETIME DEFAULT CURRENT\_TIMESTAMP,

PRIMARY KEY(id),

FOREIGN KEY(user\_id) references users(id),

FOREIGN KEY(post\_id) references posts(id)

);

```

## Add Data to Comments Table

```sql

INSERT INTO comments(post\_id, user\_id, body) VALUES (1, 3, 'This is comment one'),(2, 1, 'This is comment two'),(5, 3, 'This is comment three'),(2, 4, 'This is comment four'),(1, 2, 'This is comment five'),(3, 1, 'This is comment six'),(3, 2, 'This is comment six'),(5, 4, 'This is comment seven'),(2, 3, 'This is comment seven');

```

## Left Join

```sql

SELECT

comments.body,

posts.title

FROM comments

LEFT JOIN posts ON posts.id = comments.post\_id

ORDER BY posts.title;

```

## Join Multiple Tables

```sql

SELECT

comments.body,

posts.title,

users.first\_name,

users.last\_name

FROM comments

INNER JOIN posts on posts.id = comments.post\_id

INNER JOIN users on users.id = comments.user\_id

ORDER BY posts.title;

```

## Aggregate Functions

```sql

SELECT COUNT(id) FROM users;

SELECT MAX(age) FROM users;

SELECT MIN(age) FROM users;

SELECT SUM(age) FROM users;

SELECT UCASE(first\_name), LCASE(last\_name) FROM users;

```

## Group By

```sql

SELECT age, COUNT(age) FROM users GROUP BY age;

SELECT age, COUNT(age) FROM users WHERE age > 20 GROUP BY age;

SELECT age, COUNT(age) FROM users GROUP BY age HAVING count(age) >=2;

```