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

```
# 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

```
mysql -u root -p
```

Show Users

```
SELECT User, Host FROM mysql.user;
```

Create User

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

Grant All Priveleges On All Databases

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

Show Grants

```
SHOW GRANTS FOR 'someuser'@'localhost';
```

Remove Grants

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

Delete User

```
DROP USER 'someuser'@'localhost';
```

Exit

```
exit;
```

Show Databases

```
SHOW DATABASES
```

Create Database

```
CREATE DATABASE acme;
```

Delete Database

```
DROP DATABASE acme;
```

Select Database

```
USE acme;
```

Create Table

```
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

```
DROP TABLE tablename;
```

Show Tables

```
SHOW TABLES;
```

Insert Row / Record

```
INSERT INTO users (first_name, last_name, email, password, location, dept, is_admin, register_da
```

Insert Multiple Rows

```
INSERT INTO users (first_name, last_name, email, password, location, dept,  is_admin, register_d
```

Select

```
SELECT * FROM users;
SELECT first_name, last_name FROM users;
```

Where Clause

```
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

```
DELETE FROM users WHERE id = 6;
```

Update Row

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

Add New Column

```
ALTER TABLE users ADD age VARCHAR(3);
```

Modify Column

```
ALTER TABLE users MODIFY COLUMN age INT(3);
```

Order By (Sort)

```
SELECT * FROM users ORDER BY last_name ASC;
SELECT * FROM users ORDER BY last_name DESC;
```

Concatenate Columns

```
SELECT CONCAT(first_name, ' ', last_name) AS 'Name', dept FROM users;
```

Select Distinct Rows

```
SELECT DISTINCT location FROM users;
```

Between (Select Range)

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

Like (Searching)

```
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

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

IN

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

Create & Remove Index

```
CREATE INDEX LIndex On users(location);
DROP INDEX LIndex ON users;
```

New Table With Foreign Key (Posts)

```
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

```
INSERT INTO posts(user_id, title, body) VALUES (1, 'Post One', 'This is post one'),(3, 'Post Tw
```

INNER JOIN

```
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

```
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

```
INSERT INTO comments(post_id, user_id, body) VALUES (1, 3, 'This is comment one'),(2, 1, 'This
```

Left Join

```
SELECT
comments.body,
posts.title
FROM comments
LEFT JOIN posts ON posts.id = comments.post_id
ORDER BY posts.title;
```

Join Multiple Tables

```
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

```
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;
```