SQL CHEAT SHEET

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**CORRECT KEYWORD ORDER**

*SQL is Sensitive To Keyword Order*

1. SELECT
2. FROM
3. JOIN (ON)
4. WHERE
5. GROUP BY
6. HAVING
7. ORDER BY
8. LIMIT

**BASICS**

1. SQL is **NOT case-sensitive**.
2. Every statement must end with a semicolon **(;)**
3. `**- -**` Single Comment - **2 dashes**
4. **\\*** This is a multi-line comment. **\*\**
5. \* Asterisk represents all, like BASH

**SINGLE / DOUBLE QUOTES**

1. ***Single*** quotes are used for text strings
2. ***Double*** quotes are used for a   
   ***table name*** or a ***field name***.

**MISC. COMPARISON OPERATORS**

1. Not equal: **<>**
2. Not equal: **!=**
3. `is null`
4. `is not null`

**BASIC EXAMPLE**

**SELECT \*** - - All features

**FROM** customers - - from table customers

**WHERE** state = ‘CA’; - - conditional

**CLAUSES**

1. **WHERE** - Restrict the results of a query based on values of individual rows within a column.
2. **GROUP BY** - A clause used with aggregate functions to combine data from one or more columns. Arrange identical data into groups.
3. **HAVING** - Limit the results of a query based on an aggregate property.
4. **ORDER BY** - Sort results by column. ORDER BY column ASC/DESC
5. **LIMIT** - Maximum number of rows to return.

**AGGREGATE FUNCTIONS**

1. **COUNT**() - Count the number of rows, observations referred to in statement

*SELECT COUNT(column)*

1. **SUM**() - summation of column/feature

*SELECT SUM(column)*

1. **MAX**() - Find maximum value in column

*SELECT MAX(column)*

1. **MIN**() - Find minimum value in column

*SELECT MIN(column)*

1. **AVG**() - Finds mean

*SELECT AVG(column)*

1. **ROUND** - rounds to place

*SELECT ROUND(column, integer)*

**LOGICAL OPERATORS**

1. **AND** (both conditions must be True)
2. **OR** (at least one condition must be True)
3. **NOT** (to negate a condition)
4. {**=, >, >=, <, <=, !=, <>**} *Don’t Forget*

**WHERE FILTERING CLAUSES**

{*AND, OR, NOT, IN, BETWEEN, LIKE, REGEXP*}

*SELECT state, population*

*FROM customers*

1. WHERE state = ‘CA’ **AND** population > 1000 \*\*Both must be TRUE\*\*
2. WHERE state = ‘CA’ **OR** population > 1000 \*\*One must be TRUE\*\*
3. WHERE **NOT** (state = ‘CA’)
4. WHERE state **IN** (‘VA’, ‘NY’, ‘CA’)
5. WHERE *population* **BETWEEN** 10 **AND** 20
6. WHERE state **LIKE** ‘m%’  
   State starts with ‘m’
7. WHERE state **REGEXP** ‘^[a-f]’

State starts with a thru f.

### **BASIC MANIPULATIONS**

1. **SHOW DATABASES** - list all available DB
2. **USE** DB - use specific DB
3. **SHOW TABLES**

FROM DB - list all tables in a DB

1. **DESCRIBE table** - list column headers in table
2. **SHOW FIELDS**

FROM table - list all fields

1. **SHOW COLUMNS**

FROM table - list all columns/fields + field type

1. **SHOW INDEX**

FROM table - list all indexes from table

**8. CREATE TABLE**

***NEED More Info On Creating Tables, etc,***