

SQL CHEATSHEET

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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. ``- -`` This is a comment. (**2 dashes**)
4. `*` This is a multi-line comment. `*\`
5. `*` Asterisk represents all

SINGLE VS DOUBLE QUOTES

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

COMPARISON OPERATORS

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

BASIC EXAMPLE

SELECT * -- All features
FROM customers -- from table x
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)
2. **SUM()** - summation of column/feature
SELECT SUM(column)
3. **MAX()** - Find maximum value in column
SELECT MAX(column)
4. **MIN()** - Find minimum value in column
SELECT MIN(column)
5. **AVG()** - Finds mean
SELECT AVG(column)
6. **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
4. **DESCRIBE table** - list column headers in table
5. **SHOW FIELDS**
FROM table - list all fields
6. **SHOW COLUMNS**
FROM table - list all columns/fields + field type
7. **SHOW INDEX**
FROM table - list all indexes from table