Sources

- W3Schools.com
- DataQuest.io

CHEATSHEET















Commands / Clauses

SELECT Select data from database **FROM** Specify table we're pulling from Filter query to match a condition WHERE AS Rename column or table with alias JOIN Combine rows from 2 or more tables Combine query conditions. All must be met AND Combine query conditions. One must be met OR LIMIT Limit rows returned. See also FETCH & TOP IN Specify multiple values when using WHERE CASE Return value on a specified condition Return only rows with a NULL value IS NULL LIKE Search for patterns in column Write transaction to database COMMIT ROLLBACK Undo a transaction block ALTER TABLE Add/Remove columns from table **UPDATE** Update table data Create TABLE, DATABASE, INDEX or VIEW CREATE DELETE Delete rows from table INSERT Add single row to table

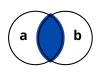
Delete TABLE, DATABASE, or INDEX

Group data into logical sets

ORDER BY Set order of result. Use DESC to reverse order HAVING Same as WHERE but filters groups Count number of rows COUNT

Return sum of column SUM AVG Return average of column MIN Return min value of column MAX Return max value of column

Joins



a INNER JOIN b



a LEFT JOIN b



a RIGHT JOIN b



Order Of

Execution

FROM

WHERE

GROUP BY

HAVING

SELECT

LIMIT

ORDER BY

Examples

Select all columns with filter applied

SELECT * FROM tbl WHERE col > 5;

Select first 10 rows for two columns

SELECT col1, col2 FROM tbl LIMIT 10;

Select all columns with multiple filters

SELECT * FROM tbl WHERE col1 > 5 OR col2 < 2;

Select all rows from col1 & col2 ordering by col1

SELECT col1, col2 FROM tbl ORDER BY 1:

Return count of rows in table

SELECT COUNT(*) FROM tbl;

Return sum of col1

SELECT SUM(col1) FROM tbl;

Return max value for col1

SELECT MAX(col1) FROM tbl;

Compute summary stats by grouping col2

SELECT AVG(col1) FROM tbl **GROUP BY col2**;

Combine data from 2 tables using left join

SELECT * FROM tbl1 AS t1 LEFT JOIN tbl2 AS t2 ON t2.col1 = t1.col1;

Aggregate and filter result

SELECT col1, COUNT(*) AS total FROM tbl **GROUP BY col1** HAVING COUNT(*) > 10;

Implementation of CASE statement

```
SELECT col1,
CASE
    WHEN col1 > 10 THEN 'more than 10'
    WHEN col1 < 10 THEN 'less than 10'
    ELSE '10'
END AS NewColumnName
FROM tbl;
```

Data Definition Language

CREATE

DROP

GROUP BY

CREATE DATABASE MyDatabase:

CREATE TABLE MyTable (id int. name varchar(10));

CREATE INDEX IndexName ON TableName(col1);

ALTER

ALTER TABLE MyTable DROP COLUMN col5;

ALTER TABLE MyTable ADD col5 int;

DROP

DROP DATABASE MyDatabase; DROP TABLE MyTable;

Data Manipulation Language

UPDATE

UPDATE MyTable

SET col1 = 56
WHERE col2 = 'something';

SELECT col1, col2

INSERT

INSERT INTO MyTable (col1, col2) VALUES ('value1', 'value2');

DELETE SELECT

DELETE FROM MyTable WHERE col1 = 'something': FROM MyTable;