Sources

- W3Schools.com
- DataQuest.io



















Commands / Clauses

SELECT Select data from database FROM Specify table we're pulling from WHERE Filter query to match a condition Rename column or table with alias AS Combine rows from 2 or more tables JOIN AND Combine query conditions. All must be met OR Combine query conditions. One must be met LIMIT Limit rows returned. See also FETCH & TOP Specify multiple values when using WHERE IN CASE Return value on a specified condition IS NULL Return only rows with a NULL value LIKE Search for patterns in column COMMIT Write transaction to database

ALTER TABLE Add/Remove columns from table

UPDATE Update table data

ROLLBACK

Create TABLE, DATABASE, INDEX or VIEW CREATE

DELETE Delete rows from table Add single row to table INSERT

Delete TABLE, DATABASE, or INDEX DROP

Undo a transaction block

GROUP BY Group data into logical sets

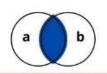
Set order of result. Use DESC to reverse order ORDER BY

HAVING Same as WHERE but filters groups

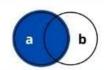
COUNT Count number of rows SUM Return sum of column AVG Return average of column Return min value of column MIN MAX

Return max value of column

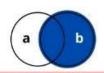
Joins



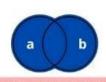
a INNER JOIN b



a LEFT JOIN b



a RIGHT JOIN b



a FULL OUTER 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

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';

DELETE

DELETE FROM MyTable WHERE col1 = 'something';

INSERT

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

SELECT

SELECT col1, col2 FROM MyTable;