

## Sources

- W3Schools.com
- DataQuest.io

# SQL CHEATSHEET

CONSIDER  
SUPPORTING ME



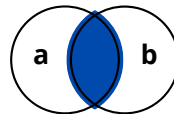
@AbzAaron



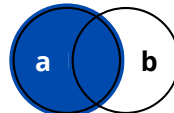
## Commands / Clauses

|                    |  |
|--------------------|--|
| <b>SELECT</b>      | Select data from database                      |
| <b>FROM</b>        | Specify table we're pulling from               |
| <b>WHERE</b>       | Filter query to match a condition              |
| <b>AS</b>          | Rename column or table with alias              |
| <b>JOIN</b>        | Combine rows from 2 or more tables             |
| <b>AND</b>         | Combine query conditions. All must be met      |
| <b>OR</b>          | Combine query conditions. One must be met      |
| <b>LIMIT</b>       | Limit rows returned. See also FETCH & TOP      |
| <b>IN</b>          | Specify multiple values when using WHERE       |
| <b>CASE</b>        | Return value on a specified condition          |
| <b>IS NULL</b>     | Return only rows with a NULL value             |
| <b>LIKE</b>        | Search for patterns in column                  |
| <b>COMMIT</b>      | Write transaction to database                  |
| <b>ROLLBACK</b>    | Undo a transaction block                       |
| <b>ALTER TABLE</b> | Add/Remove columns from table                  |
| <b>UPDATE</b>      | Update table data                              |
| <b>CREATE</b>      | Create TABLE, DATABASE, INDEX or VIEW          |
| <b>DELETE</b>      | Delete rows from table                         |
| <b>INSERT</b>      | Add single row to table                        |
| <b>DROP</b>        | Delete TABLE, DATABASE, or INDEX               |
| <b>GROUP BY</b>    | Group data into logical sets                   |
| <b>ORDER BY</b>    | Set order of result. Use DESC to reverse order |
| <b>HAVING</b>      | Same as WHERE but filters groups               |
| <b>COUNT</b>       | Count number of rows                           |
| <b>SUM</b>         | Return sum of column                           |
| <b>AVG</b>         | Return average of column                       |
| <b>MIN</b>         | Return min value of column                     |
| <b>MAX</b>         | Return max value of column                     |

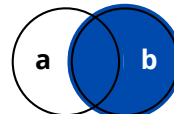
## Joins



**a INNER JOIN b**



**a LEFT JOIN b**



**a RIGHT JOIN b**



**a FULL OUTER JOIN b**

## 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';
```

### INSERT

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

### DELETE

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

### SELECT

```
SELECT col1, col2  
FROM MyTable;
```

## Order Of Execution

- 1 FROM
- 2 WHERE
- 3 GROUP BY
- 4 HAVING
- 5 SELECT
- 6 ORDER BY
- 7 LIMIT