SQL

CHEATSHEET

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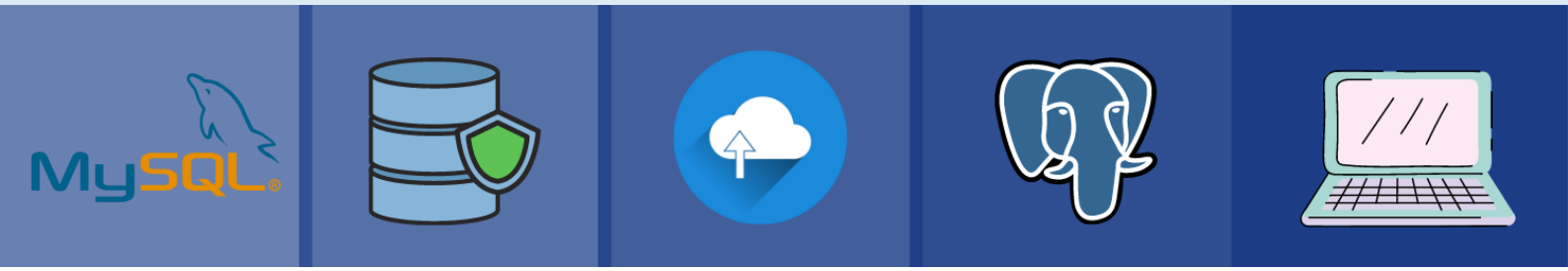
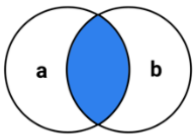


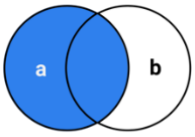
Common Commands

SELECT	Select data from database
AS	Rename column or table with alias
FROM	Specify table we're pulling from
WHERE	Filter query to match a condition
JOIN	Combine rows from 2 or more tables
AND	Combine conditions in a query. All must be met
OR	Combine conditions in a query. One must be met
LIKE	Search for patterns in a column
IN	Specify multiple values when using WHERE
IS NULL	Return only rows with a NULL value
LIMIT	Limit the number of rows returned
CASE	Return value on a specified condition
CREATE	Create TABLE, DATABASE, INDEX or VIEW
DROP	Delete TABLE, DATABASE, or INDEX
UPDATE	Update table data
DELETE	Delete rows from a table
ALTER TABLE	Add/Remove columns from table
GROUP BY	Group rows that have same values into summary rows
ORDER BY	Set order of result. Use DESC to reverse order
HAVING	Same as WHERE but used for aggregate functions
SUM	Return sum of column
AVG	Return average of column
MIN	Return min value of column
MAX	Return max value of column
COUNT	Count number of rows

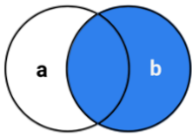
Joins



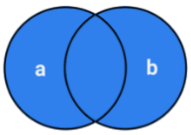
a INNER JOIN b



a LEFT JOIN b



a RIGHT JOIN b



a FULL OUTER JOIN b

Examples

Select all rows from table with filter applied

```
SELECT * FROM tbl WHERE col1 > 5;
```

Select first 10 rows for 2 columns

```
SELECT col1, col2 FROM tbl LIMIT 10;
```

Select all rows with multiple filters applied

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

Select all rows from col1 and col2 ordering by col1

```
SELECT col2, AVG(col1) FROM tbl GROUP BY col2;
```

Return count of rows in table

```
SELECT COUNT(*) FROM tbl;
```

Return sum of col1

```
SELECT SUM(col1) FROM tbl;
```

Return max value from col1

```
SELECT MAX(col1) FROM tbl;
```

Computer summary statistics by grouping col2

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

Combine data from two tables using a left join

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

Aggregate and filter results

```
SELECT
    col1,
    AVG(col2) * AVG(col3) AS total
FROM tbl
GROUP BY col1
HAVING total > 2
```

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;
```

Create

```
CREATE DATABASE MyDatabase;
```

```
CREATE INDEX IndexName
ON TableName(col1);
```

```
CREATE TABLE OurTable (
    id int,
    name varchar(12)
);
```

Update Table

```
UPDATE OurTable
SET col1 = 56
WHERE col2 = 'something';
```

Delete Records

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

Delete

```
DROP DATABASE OurDatabase;
```

```
DROP TABLE OurTable;
```

Add/Remove Column

```
ALTER TABLE OurTable
ADD col5 int;
```

```
ALTER TABLE OurTable
DROP COLUMN col5;
```

Order of Execution

FROM
WHERE
GROUP BY
HAVING
SELECT
ORDER BY
LIMIT

Sources:

https://www.dataquest.io/blog/sql-commands/#t-1613505022898

https://www.dataquest.io/blog/sql-joins-tutorial/