

# SQL Cheat Sheet

## Select Columns



**SELECT** ticker, revenue **FROM** company\_info  
columns (use \* to select all)                      table

Select all rows from the given columns and table.

Append additional commands to the end.

**SELECT DISTINCT** ticker, revenue **FROM** companies

Only select distinct rows from the given columns and table.

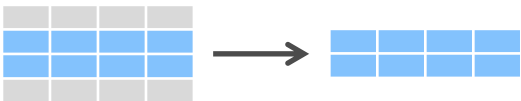
## Sort Rows

**ORDER BY** net\_income **DESC**

Sort rows in descending order.

Omit **DESC** for ascending order.

## Filter Rows



**LIMIT** 5

Limit the number of rows selected.

**WHERE** revenue > 100

Only select rows that satisfy a condition.

**NOT, AND, OR**

Negate or combine conditions.

## Conditions

sic\_code **BETWEEN** 1000 **AND** 1499

Rows where value is in an inclusive range.

ticker **IN** ('K0', 'PEP')

Rows where value is in a list.

revenue **IS NOT NULL**

Rows where value is not missing.

ticker **LIKE** 'A%'

Rows where value matches a pattern.

Wildcard patterns:

\_ Any 1 character

% Any 0 or more characters

## Transform Columns

Column operators:

**+** Addition

**-** Subtraction

**\*** Multiplication

**/** Division

**%** Modulo

**||** Concatenation

**ABS**(revenue)

Compute absolute values.

**ROUND**(revenue / asset, 3)

Round to given number of decimal places.

**LENGTH**(ticker)

Compute total number of characters.

**LOWER**(company\_name)

Convert all characters to lowercase.

**UPPER**(sector)

Convert all characters to uppercase.

**TRIM**(company\_name, ' ')

Remove given character(s) at both ends.

**REPLACE**(industry, '&', 'and')

Replace all cases of second string with third.

**SUBSTR**(company\_name, 1, 3)

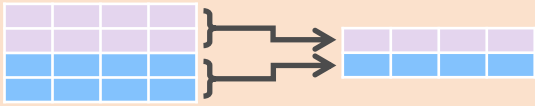
Get substring at position with given length.

## Rename Columns or Tables

revenue **AS** rev

Create an alias for a column or table.

## Summarize Columns



**AVG**( revenue )

Compute mean of values in a column.

**COUNT**( asset )

Compute number of values in a column.

**MAX**( revenue )

Compute maximum of values in a column.

**MIN**( asset )

Compute minimum of values in a column.

**SUM**( revenue )

Compute sum of values in a column.

**GROUP BY** sector

Group rows before computing summaries.

**HAVING COUNT**( sector ) > 3

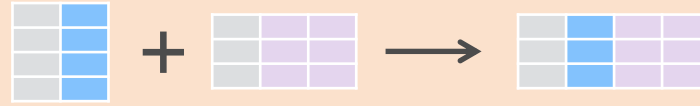
Only select groups that satisfy a condition.

## Dates

**DATE**( date )

Create an alias for a column or table.

## Combine Tables



dot notation for specific table and column

```
SELECT r.ticker, r.revenue, l.zip FROM
      company_info AS l
INNER JOIN
      company_locations AS r
ON l.ticker = r.ticker
```

left table  
type of join  
right table

condition to match rows

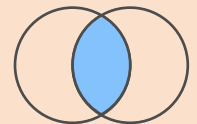
Combine two tables using given condition to match rows.

Types of joins:

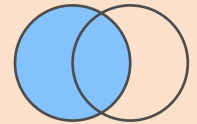
**INNER** Matching rows only.

**LEFT** All rows from left table,  
matching rows from right table.

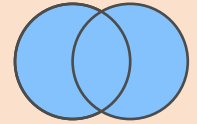
**FULL** All rows from both tables.



INNER



LEFT



FULL

## Temporary Tables and Views

**CREATE TEMPORARY TABLE** state\_revenue **AS SELECT** ...

Create a new table from a query. The table will be deleted when the database is closed.

**CREATE TEMPORARY VIEW** state\_revenue **AS SELECT** ...

Save (but do not run) a query. The query will be deleted when the database is closed.

Omit **TEMPORARY** to make the new table/view permanent.