CHEAT SHEET
SQL

Start with PowerBI
"From Rookie to Rock"

SQL Syntax

🖍️ You can also choose an LLM (Claude, ChatGPT, Mistral...) to create a good syntax, understand is better!

Basic syntax	Meaning	Example
SELECT column1, column2, ...	→ indicates what data to retrieve	SELECT name, age
FROM table	→ where the data comes from	FROM users
WHERE condition	→ condition to filter results	WHERE age > 18
GROUP BY Column	→ group results by a column	GROUP BY city
HAVING condition_on_group	→ like WHERE, but for groups	HAVING COUNT(*) > 10
ORDER BY column ASC|DESC	→ sort the results	ORDER BY age ASC
LIMIT number;	→ limit the number of results	LIMIT 10

Main SQL Database

SQLite · PostgreSQL · ORACLE DATABASE · Microsoft SQL Server · MySQL

Execution order

1. FROM
2. WHERE
3. GROUP BY
4. HAVING
5. SELECT
6. ORDER BY

Writing order

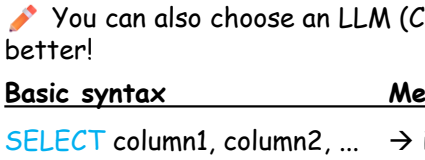
1. SELECT
2. FROM
3. WHERE
4. GROUP BY
5. HAVING
6. ORDER BY

Joins

INNER JOIN
Return to the lines where there is correspondance between the tables.

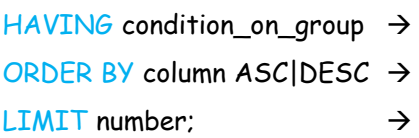

```
SELECT *
FROM A
INNER JOIN B  ON A.key = B.key
```

LEFT JOIN
Return all the lines from the table to the right and the corresponding lines from the table to the right.



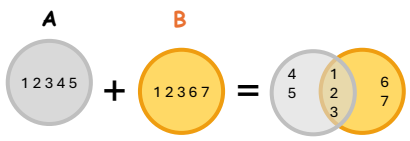

```
SELECT *
FROM A
LEFT JOIN B  ON A.key = B.key
```

RIGHT JOIN
Return all the lines from the table to the right and the corresponding lines from the table to the right.




```
SELECT *
FROM A
RIGHT JOIN B  ON A.key = B.key
```

FULL OUTER JOIN
Return all table records, indicating null where there is no correspondence




```
SELECT *
FROM A
FULL JOIN B  ON A.key = B.key
```

SQL commands

ALTER TABLE	Modifies the structure of a table.
AND	Combines search conditions.
AS	Returns a column or table with an alias.
AVG	Calculates the avearge value of a numeric column.
BETWEEN	Filters records within a range of values.
CASE	Returns the value of a specific condition.
COMMIT	Permanently saves changes made.
COUNT	Counts the number of rows.
CREATE TABLE	Creates a new table from the data bank
DELETE	Remove records from a table.
DISTINCT	Remove duplicate values from a set of results.
DROP TABLE	Excludes a table from the data bank.
FROM	Specifies a table from which the data are retrieved.
GROUP BY	Group records based on one or more columns.
HAVING	Filters groups of records after GROUP BY.
IN	Filters records based on a list of values.
INSERT	Inserts new records into a table.
IS NULL	Returns only rows with a NULL value.
JOIN	Combines records from two or more tables.
LIKE	Returns a corresponding column using characters from the WHERE clause of a SELECT statement.
LIMIT	Restricts the number of returned records.
MAX	Returns the maximum value of the column.
MIN	Returns the minimum value of the column.
NOT IN	Excludes records based on a list of values.
ON	Defines the condition for joining tables in a JOIN.
ORDER BY	Order the results by one or more columns.
SELECT	Retrieves data from one or more tables.
UPDATE	Updates a record to the table.
WHERE	Filters records based on a condition.

Learn and practice
Find past issues of "Patou Tips" and download resources to practice on GitHub
https://github.com/PatouTips/Patou-Tips

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