

DATA ANALYSIS



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“SQL SYNTAX BASICS”

WHAT IS SQL?

- SQL is Standard Query Language.
- SQL is a standardized programming language used for storing, manipulating, and retrieving data from relational databases.
- Whether you're working with MySQL, SQL Server, MS Access, Oracle, Sybase, Informix, or Postgres, understanding SQL syntax is crucial.
- Here are some fundamental points:

NEXT



SQL STATEMENTS

- SQL statements are the building blocks of database interactions. They allow you to perform various operations like querying data, inserting records, updating existing data, and deleting records.
- Most common statements include:

SELECT

Retrieves data from one or more tables.

INSERT INTO

Adds new records to a table.

UPDATE

Modifies existing data.

DELETE

delete existing records from a database table.



SQL CLAUSES

- Clauses are components of SQL statements that define what action to take or what data to manipulate.
- Some common clauses include:

FROM

Specifies the table(s) from which to retrieve data.

WHERE

Filters data based on specified conditions.

GROUP BY

Groups rows sharing a property into summary rows.

JOIN

Combines records from two or more tables in a relational database.



SQL KEYWORDS

- Keywords are reserved words in SQL that have special meanings and cannot be used for other purposes.
- They cannot be used as identifiers (such as table or column names).
- Some common keywords include:

SELECT

Used to retrieve data.

FROM

Specifies the table(s) from which to retrieve data.

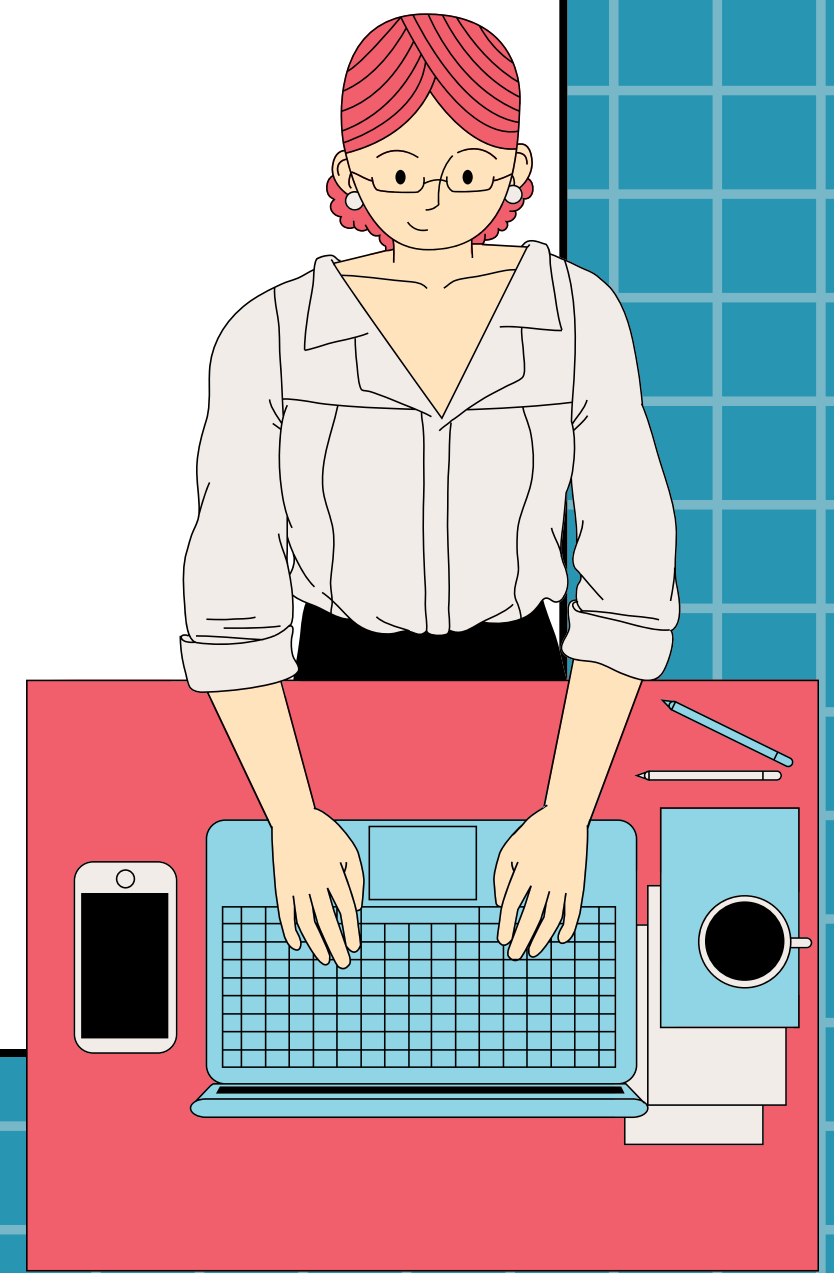
WHERE

Filters rows based on specified conditions.

AND, OR, NOT

Logical operators used in WHERE clauses.

NEXT



INSERT INTO

Inserts new records into a table.

UPDATE

Modifies existing records in a table.

DELETE FROM

Deletes existing records from a table.

CREATE TABLE

Creates a new table.

JOIN

Combines records from two or more tables.

INNER, LEFT,
RIGHT, FULL

Types of joins.

ORDER BY

Sorts the result set.

GROUP BY

Groups rows sharing a property.

HAVING

Filters groups based on specified conditions

AS

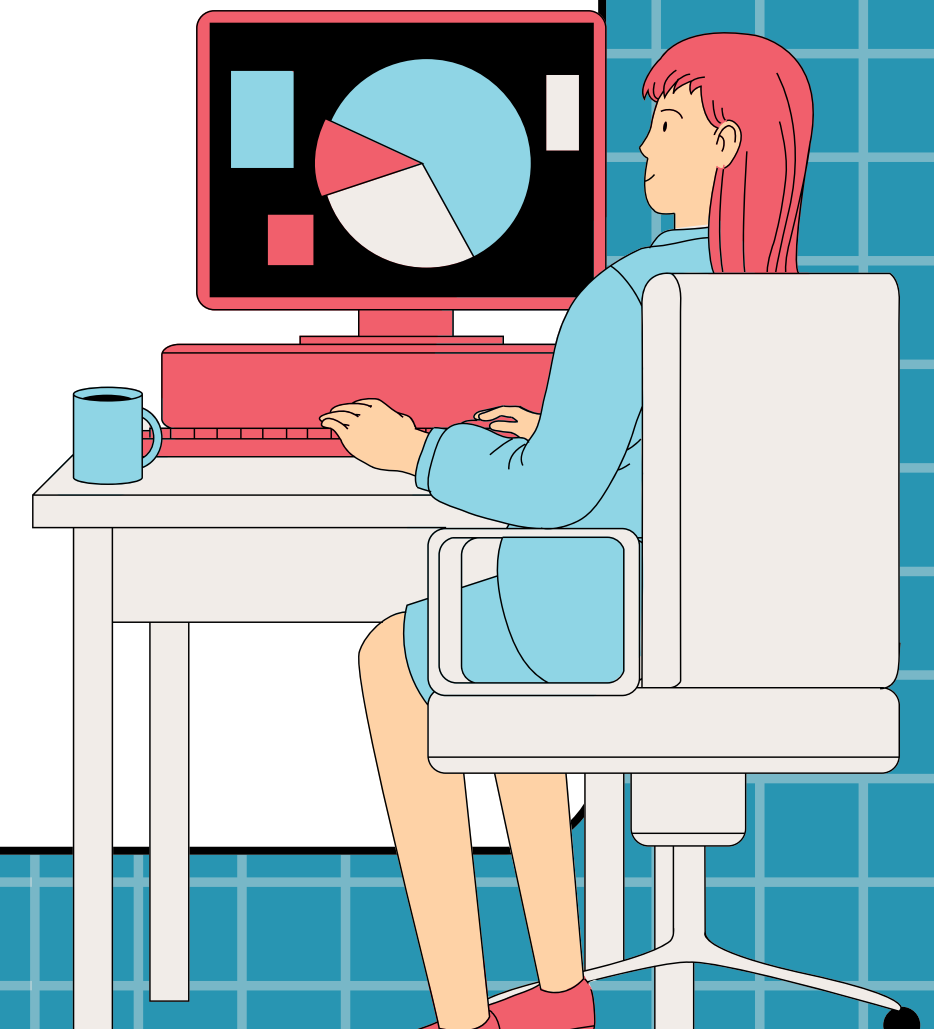
Renames a column or table.

DISTINCT

Returns only distinct values.

COUNT, SUM,
AVG, MIN, MAX

Aggregate functions
used with SELECT
statements.



SQL OPERATORS

- Operators are used to perform comparisons or logical operations within SQL statements.
- Common operators:

= (equal), != (not equal), < (less than), > (greater than), AND, OR, etc.



SQL FUNCTIONS

- Functions manipulate data or perform calculations.
- Examples:

COUNT()

Counts the number of rows.

SUM()

Calculates the sum of numeric values.

AVG()

Computes the average of a column.



Thank You!

