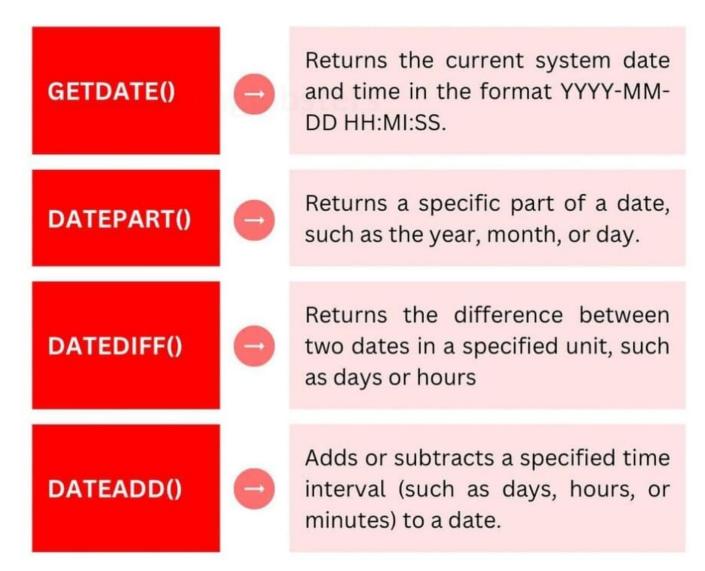# SQL

FUNCTIONS ?

SWIPE

Microsoft SQL Server provides a wide range of **built-in functions** that can be used to manipulate and analyze data in various ways.

Let's learn some of the commonly used types of built-in functions.
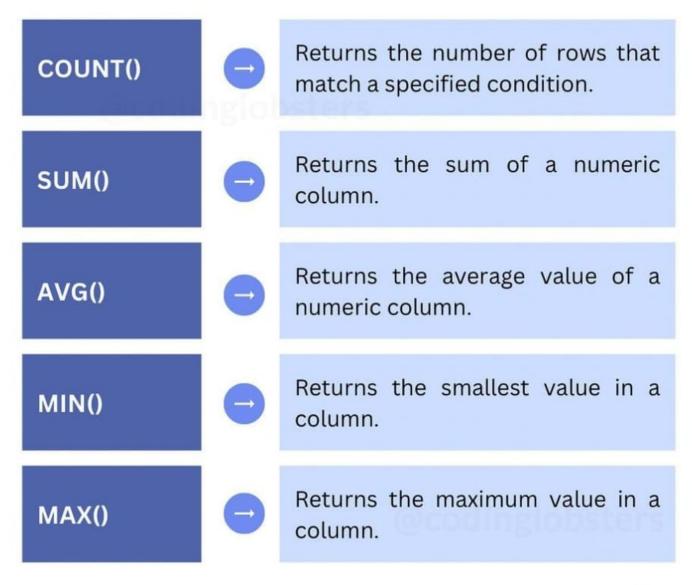
Date Time functions

SQL Date Time functions are used to manipulate and format date and time values.

EXAMPLES

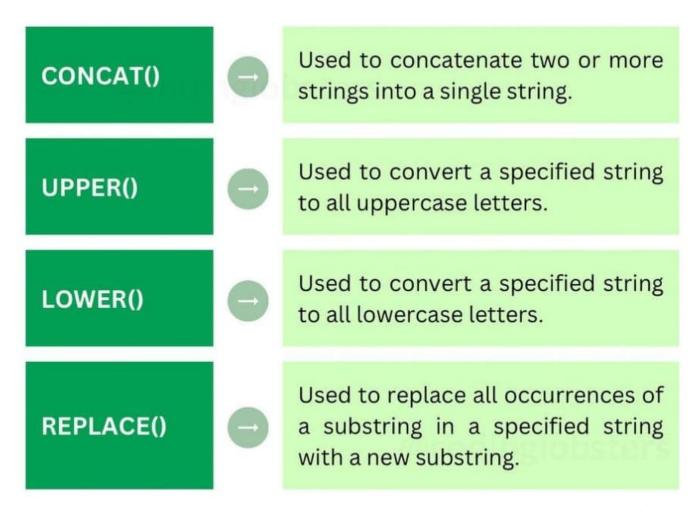|		
GETDATE()	→	Returns the current system date and time in the format YYYY-MM-DD HH:MI:SS.
DATEPART()	→	Returns a specific part of a date, such as the year, month, or day.
DATEDIFF()	→	Returns the difference between two dates in a specified unit, such as days or hours
DATEADD()	→	Adds or subtracts a specified time interval (such as days, hours, or minutes) to a date.

Aggregate functions

SQL Aggregate functions are used to perform calculations on a set of rows and return a single value as the result.

EXAMPLES

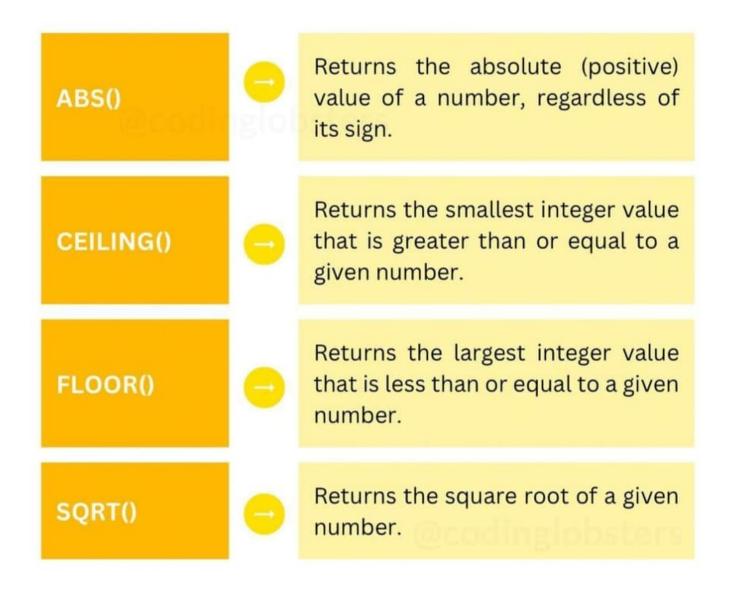| COUNT()	→	Returns the number of rows that match a specified condition.
SUM()	→	Returns the sum of a numeric column.
AVG()	→	Returns the average value of a numeric column.
MIN()	→	Returns the smallest value in a column.
MAX()	→	Returns the maximum value in a column.

String Functions

SQL String functions help you modify and work with text data in your database, like combining words, finding specific words, trimming, and formatting.

EXAMPLES

CONCAT() →	Used to concatenate two or more strings into a single string.
UPPER() →	Used to convert a specified string to all uppercase letters.
LOWER() →	Used to convert a specified string to all lowercase letters.
REPLACE() →	Used to replace all occurrences of a substring in a specified string with a new substring.

Mathematical Functions

SQL Mathematical functions are used to perform calculations and operations on numerical data within a SQL query.

EXAMPLES

ABS() →	Returns the absolute (positive) value of a number, regardless of its sign.
CEILING() →	Returns the smallest integer value that is greater than or equal to a given number.
FLOOR() →	Returns the largest integer value that is less than or equal to a given number.
SQRT() →	Returns the square root of a given number.

Ranking Functions

SQL Ranking functions are used to assign a rank or row number to each row within a result set.

EXAMPLES

RANK()	→	Assigns a unique ranking to each row within a result set, where ties are assigned the same rank and the next consecutive rank is not skipped.
DENSE_RANK()	→	Assigns a unique ranking to each row within a result set, where ties are assigned the same rank and the next consecutive rank is skipped.
ROW_NUMBER()	→	Returns the number of rows that match a specified condition.