Mathematical functions in SQL

FLOOR: Returns the largest integer less than or equal to a numeric value.
Example: SELECT FLOOR (45.99); #Result (45)

ROUND: Rounds a numeric value to the specified number of decimal places.
Example: SELECT ROUND (12.456,1); #Result (12.4)

CEILING: Returns the smallest integer greater than or equal to a numeric value.
Example: SELECT CEIL (45.0001); #Result (46)

ABS: Returns the absolute value of a number.
Example: SELECT ABS (-12); #Result (12)

SIGN: Returns the sign of a number.
Example: SELECT SIGN (-456); #Result (-1), SELECT SIGN (45); #Result (1)

SQRT: Returns the square root of a number.
Example: SELECT SQRT (144); #Result (12)

POWER: Returns the value of a number raised to the power of another number.
Example: SELECT POWER (5,3); #Result (125)

RAND: Returns a random number.

Example: SELECT RAND ( ); #Result (0.0417)

SUM: Calculates the sum of a set of values.
Example: SELECT SUM (10+20); #Result (30)

MOD: The MOD() function returns the remainder of a number divided by another number.
Example: SELECT MOD (45, 10); #Result (5)

String Functions

UPPER: It is used to convert the all text in capital letter.
Example: SELECT UPPER ("prince sharma"); #Result (PRINCE SHARMA)

LOWER: It is used to convert the all text in small letter.
Example: SELECT UPPER ("PRINCE SHARMA"); #Result (prince sharma)

TRIM: It is used to delete the extra space starting and ending of text.
Example: SELECT TRIM (" Prince Sharma "); #Result (PrinceSharma)

LEFT: It is used to extract the alphabet from starting of the text.
Example: SELECT LEFT ("Prince", 4); #Result (Prin)

RIGHT: It is used to extract the alphabet from ending of the text.

Example: SELECT RIGHT ("Prince", 3); #Result (nce)

INSTR: It is used to find the index of alphabet from the text.
Example: SELECT INSTR ("PRINCE", "I"); #Result (3)

SUBTR: It is used to extract the value from mid of the text or mid.
Example: SELECT SUBTR ("SCIENCE", 3,4); #Result (IENC)

REVERSE: It is used to reverse the text.
Example: SELECT REVERSE ("SCIENCE", 3,4); #Result (ECNEICS)

REPLACE: It is used to replace the alphabet from the old text to new text.
Example: SELECT REPLACE ("DATA", "A","*"); #Result (D*T*)

CONCAT: It is used to combine two or more strings together.
Example: SELECT CONCATE ("KUMARI", "JAYA"); #Result (KUMARIJAYA)

CONCAT_WS: It is used to combine two or more strings together with a separator.
Example: SELECT CONCATE_WS ("---", "KUMARI", "JAYA"); #Result (KUMARI--JAYA)

LENGTH: It is used to show the length of the text.
Example: SELECT LENGTH ("KUMARI", "JAYA"); #Result (11)

Date & Time Functions

NOW: The NOW() function retrieves the current date and time in YYYY-MM-DD HH:MI:SS format.
EXAMPLE: SELECT NOW(); #Result (2025-03-21 01:26:59)

CURDATE(): The CURDATE() returns the current date in YYYY-MM-DD format, without the time part.
EXAMPLE: SELECT CURDATE(); #Result (2025-03-21)

CURTIME(): The CURTIME() function returns the current time in HH:MI:SS format, excluding the date.
EXAMPLE: SELECT CURTIME(); #Result (01:38:43)

DATE_ADD(): The DATE_ADD() function allows you to add a specified time interval to a date.
EXAMPLE: SELECT DATE_ADD("2024-04-01", INTERVAL 20 DAY); #Result (2024-04-21)

MONTH(): Returns the month part for a given date.
EXAMPLE: SELECT MONTH("2024-08-5"); #Result (8)

MONTHNAME(): Returns the name of the month for a given date.
EXAMPLE: SELECT MONTHNAME("2024-08-5"); #Result (August)

DAY(): Returns the day of the month for a given date.

EXAMPLE: SELECT DAY(NOW()); #Result (21)

DAYNAME(): Returns the weekday name for a given date.
EXAMPLE: SELECT DAYNAME(NOW()); #Result (Friday)

QUARTER(): Returns the quarter of the year for a given date value.
EXAMPLE: SELECT QUARTER(NOW()); #Result (1)

WEEK(): Returns the week number for a given date.
EXAMPLE: SELECT WEEK(NOW()); #Result (11)

WEEKDAY(): Returns the weekday number for a given date
EXAMPLE: SELECT WEEKDAY(NOW()); #Result (4)

YEAR(): Returns the year part for a given date.
EXAMPLE: SELECT YEAR(NOW()); #Result (2025)

YEARWEEK(): Returns the year and week number for a given date.
EXAMPLE: SELECT YEARWEEK(NOW()); #Result (202511)