

# SQL FUNCTIONS

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## Math functions

**ROUND (X,Y)**  
It is used to round the value of argument X upto D decimal places.  
If number of decimal places is not specified or is zero, the number rounds to the nearest integer OR 0 decimal places.  
If negative value is specified for precision, it counts off that value left from the decimal point.  
If positive value is specified for precision, it counts off that value right from the decimal point.

**MOD(M,N) or M MOD N**  
returns the remainder of number divided by number N.  
If N is 0, the result is NULL. If M is 0, the result is 0.  
If M is negative, the result is negative.

**POWER(X,Y) OR POW(X,Y)**  
It returns the value of X raised to the power of Y.  
If X is 0, it returns 0. If Y is 0, it returns 1.  
If X is negative, the result is negative.

## AGGREGATE FUNCTIONS

**SUM()**  
To find the sum of values under the specified column

**MIN()**  
To find the minimum value under the specified column

**MAX()**  
To find the maximum value under the specified column

**COUNT(\*)**  
To count all (NULL/ NON NULL) values in the specified column

**COUNT()**  
To count the NON NULL values in the specified column

**AVG()**  
To find the average of values under the specified column

## DATE FUNCTIONS

**MONTH()**  
Returns the numeric month from the date passed, in the range 0 to 12

**NOW()**  
Returns the current date and time in 'YYYY-MM-DD HH:MM:SS'

**YEAR()**  
Returns the year for date passed in the range 0 to 9999

**DATE()**  
Extracts the date part of a date or date time expression

**MONTHNAME()**  
Returns the name of the month

**DAYNAME()**  
returns the name of the weekday for the date passed

**DAY()**  
returns the day of the date passed

## TEXT FUNCTIONS

**SUBSTRING(str, M,N) or MID(str, M,N) or SUBSTR(str,M,N)**  
Returns the specified number of characters from the middle of the string. There are 3 arguments.  
The first argument is the source string.  
The second argument is the position of first character to be displayed.  
The third argument is the number of characters to be displayed.

**LOWER(str) or LCASE(str)**  
Returns the string str in lowercase.

**UPPER(str) or UCASE(str)**  
Returns the string str in uppercase.

**LENGTH(str)**  
Returns the length of the string str

**LEFT(str, N)**  
Returns the N characters from the left side of the string str

**RIGHT(str, N)**  
Returns the N characters from the right side of the string str.

**INSTR(str, substr)**  
Returns the position of the first occurrence of substring substr in string str.

**RTRIM(str)**  
Removes the trailing spaces i.e. from the right side of the string str

**LTRIM(str)**  
Removes the leading spaces i.e. from the left side of the string str

**TRIM(str)**  
Removes both leading and trailing spaces from the string str.