

# Function Syntax

The syntax for built-in SQL functions is:

**SELECT function(column) FROM table**

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## Types of Functions

There are several basic types and categories of functions in SQL. The basic types of functions are:

- Aggregate Functions
  - Scalar functions
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## Aggregate functions

Aggregate functions operate against a collection of values, but return a single value.

**Note:** If used among many other expressions in the item list of a SELECT statement, the SELECT must have a GROUP BY clause!!

Function	Description
AVG(column)	Returns the average value of a column
COUNT(column)	Returns the number of rows (without a NULL value) of a column
COUNT(*)	Returns the number of selected rows
FIRST(column)	Returns the value of the first record in the specified field
LAST(column)	Returns the value of the last record in the specified field
MAX(column)	Returns the highest value of a column
MIN(column)	Returns the lowest value of a column
STDEV(column)	Returns the Standard Deviation
SUM(column)	Returns the total sum of a column
VAR(column)	Returns the Variance

## Scalar functions

Scalar functions operate against a single value, and return a single value based on the input value.

<b>Function</b>	<b>Description</b>
UCASE(c)	Converts a field to upper case
LCASE(c)	Converts a field to lower case
MID(c,start[,end])	Extract characters from a text field
LEN(c)	Returns the length of a text field
INSTR(c)	Returns the numeric position of a named character within a text field
LEFT(c,number_of_char)	Return the left part of a text field requested
RIGHT(c,number_of_char)	Return the right part of a text field requested
ROUND(c,decimals)	Rounds a numeric field to the number of decimals specified
MOD(x,y)	Returns the remainder of a division operation
NOW()	Returns the current system date
FORMAT(c,format)	Changes the way a field is displayed
DATEDIFF(d,date1,date2)	Used to perform date calculations