

MySQL Functions

MySQL has many built-in functions.

This reference contains string, numeric, date, and some advanced functions in MySQL.

MySQL String Functions

Function	Description
ASCII	Returns the ASCII value for the specific character
CHAR_LENGTH	Returns the length of a string (in characters)
CHARACTER_LENGTH	Returns the length of a string (in characters)
CONCAT	Adds two or more expressions together
CONCAT_WS	Adds two or more expressions together with a separator
FIELD	Returns the index position of a value in a list of values
FIND_IN_SET	Returns the position of a string within a list of strings

FORMAT	Formats a number to a format like "#,###,###.##", rounded to decimal places
INSERT	Inserts a string within a string at the specified position and before the specified character
INSTR	Returns the position of the first occurrence of a string in another string
LCASE	Converts a string to lower-case
LEFT	Extracts a number of characters from a string (starting from the left)
LENGTH	Returns the length of a string (in bytes)
LOCATE	Returns the position of the first occurrence of a substring in another string
LOWER	Converts a string to lower-case
LPAD	Left-pads a string with another string, to a certain length
LTRIM	Removes leading spaces from a string
MID	Extracts a substring from a string (starting at any position)
POSITION	Returns the position of the first occurrence of a substring in another string

REPEAT	Repeats a string as many times as specified
REPLACE	Replaces all occurrences of a substring within a string, with another string
REVERSE	Reverses a string and returns the result
RIGHT	Extracts a number of characters from a string (starting from the right)
RPAD	Right-pads a string with another string, to a certain length
RTRIM	Removes trailing spaces from a string
SPACE	Returns a string of the specified number of space characters
STRCMP	Compares two strings
SUBSTR	Extracts a substring from a string (starting at any position)
SUBSTRING	Extracts a substring from a string (starting at any position)
SUBSTRING_INDEX	Returns a substring of a string before a specified number of occurrences of a substring
TRIM	Removes leading and trailing spaces from a string

UCASE	Converts a string to upper-case
UPPER	Converts a string to upper-case

MySQL Numeric Functions

Function	Description
ABS	Returns the absolute value of a number
ACOS	Returns the arc cosine of a number
ASIN	Returns the arc sine of a number
ATAN	Returns the arc tangent of one or two numbers
ATAN2	Returns the arc tangent of two numbers
AVG	Returns the average value of an expression
CEIL	Returns the smallest integer value that is \geq to a number
CEILING	Returns the smallest integer value that is \geq to a number

[COS](#)

Returns the cosine of a number

[COT](#)

Returns the cotangent of a number

[COUNT](#)

Returns the number of records returned by a select query

[DEGREES](#)

Converts a value in radians to degrees

[DIV](#)

Used for integer division

[EXP](#)

Returns e raised to the power of a specified number

[FLOOR](#)

Returns the largest integer value that is \leq to a number

[GREATEST](#)

Returns the greatest value of the list of arguments

[LEAST](#)

Returns the smallest value of the list of arguments

[LN](#)

Returns the natural logarithm of a number

[LOG](#)

Returns the natural logarithm of a number, or the logarithm of a number to a specified base

[LOG10](#)

Returns the natural logarithm of a number to base 10

LOG2	Returns the natural logarithm of a number to base 2
MAX	Returns the maximum value in a set of values
MIN	Returns the minimum value in a set of values
MOD	Returns the remainder of a number divided by another n
PI	Returns the value of PI
POW	Returns the value of a number raised to the power of an
POWER	Returns the value of a number raised to the power of an
RADIANS	Converts a degree value into radians
RAND	Returns a random number
ROUND	Rounds a number to a specified number of decimal place
SIGN	Returns the sign of a number
SIN	Returns the sine of a number

SQRT	Returns the square root of a number
----------------------	-------------------------------------

SUM	Calculates the sum of a set of values
---------------------	---------------------------------------

TAN	Returns the tangent of a number
---------------------	---------------------------------

TRUNCATE	Truncates a number to the specified number of decimal
--------------------------	---

Function	Description
ADDDATE	Adds a time/date interval to a date and then returns the date
ADDTIME	Adds a time interval to a time/datetime and then returns the time/date
CURDATE	Returns the current date
CURRENT_DATE	Returns the current date
CURRENT_TIME	Returns the current time
CURRENT_TIMESTAMP	Returns the current date and time
CURTIME	Returns the current time
DATE	Extracts the date part from a datetime expression
DATEDIFF	Returns the number of days between two date values
DATE_ADD	Adds a time/date interval to a date and then returns the date
DATE_FORMAT	Formats a date
DATE_SUB	Subtracts a time/date interval from a date and then returns the date

DAY	Returns the day of the month for a given date
---------------------	---

DAYNAME	Returns the weekday name for a given date
-------------------------	---

DAYOFMONTH	Returns the day of the month for a given date
----------------------------	---

DAYOFWEEK	Returns the weekday index for a given date
---------------------------	--

DAYOFYEAR	Returns the day of the year for a given date
---------------------------	--

EXTRACT	Extracts a part from a given date
-------------------------	-----------------------------------

FROM_DAYS	Returns a date from a numeric datevalue
---------------------------	---

HOUR	Returns the hour part for a given date
----------------------	--

LAST_DAY	Extracts the last day of the month for a given date
--------------------------	---

LOCALTIME	Returns the current date and time
---------------------------	-----------------------------------

LOCALTIMESTAMP	Returns the current date and time
--------------------------------	-----------------------------------

MAKEDATE	Creates and returns a date based on a year and a number of days va
--------------------------	--

MAKETIME	Creates and returns a time based on an hour, minute, and second va
MICROSECOND	Returns the microsecond part of a time/datetime
MINUTE	Returns the minute part of a time/datetime
MONTH	Returns the month part for a given date
MONTHNAME	Returns the name of the month for a given date
NOW	Returns the current date and time
PERIOD_ADD	Adds a specified number of months to a period
PERIOD_DIFF	Returns the difference between two periods
QUARTER	Returns the quarter of the year for a given date value
SECOND	Returns the seconds part of a time/datetime
SEC_TO_TIME	Returns a time value based on the specified seconds
STR_TO_DATE	Returns a date based on a string and a format

SUBDATE	Subtracts a time/date interval from a date and then returns the date
SUBTIME	Subtracts a time interval from a datetime and then returns the time
SYSDATE	Returns the current date and time
TIME	Extracts the time part from a given time/datetime
TIME_FORMAT	Formats a time by a specified format
TIME_TO_SEC	Converts a time value into seconds
TIMEDIFF	Returns the difference between two time/datetime expressions
TIMESTAMP	Returns a datetime value based on a date or datetime value
TO_DAYS	Returns the number of days between a date and date "0000-00-00"
WEEK	Returns the week number for a given date
WEEKDAY	Returns the weekday number for a given date
WEEKOFYEAR	Returns the week number for a given date

YEAR	Returns the year part for a given date
----------------------	--

YEARWEEK	Returns the year and week number for a given date
--------------------------	---

MySQL Date Functions

MySQL Advanced Functions

Function	Description
BIN	Returns a binary representation of a number
BINARY	Converts a value to a binary string
CASE	Goes through conditions and return a value when the fir
CAST	Converts a value (of any type) into a specified datatype
COALESCE	Returns the first non-null value in a list
CONNECTION_ID	Returns the unique connection ID for the current connec

<u>CONV</u>	Converts a number from one numeric base system to another
<u>CONVERT</u>	Converts a value into the specified datatype or character set
<u>CURRENT_USER</u>	Returns the user name and host name for the MySQL account that authenticated the current client
<u>DATABASE</u>	Returns the name of the current database
<u>IF</u>	Returns a value if a condition is TRUE, or another value otherwise
<u>IFNULL</u>	Return a specified value if the expression is NULL, otherwise return the expression
<u>ISNULL</u>	Returns 1 or 0 depending on whether an expression is NULL
<u>LAST_INSERT_ID</u>	Returns the AUTO_INCREMENT id of the last row that has been inserted into a table
<u>NULLIF</u>	Compares two expressions and returns NULL if they are equal; otherwise, it returns the first expression
<u>SESSION_USER</u>	Returns the current MySQL user name and host name

[SYSTEM_USER](#)

Returns the current MySQL user name and host name

[USER](#)

Returns the current MySQL user name and host name

[VERSION](#)

Returns the current version of the MySQL database