MySQL Functions

MySQL has many built-in functions.

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

MySQL String Functions

Function	Description
ASCII	Returns the number code that represents the specific character
CHAR_LENGTH	Returns the length of the specified string (in characters)
CHARACTER_LENGTH	Returns the length of the specified string (in characters)
CONCAT	Concatenates two or more expressions together
CONCAT_WS	Concatenates two or more expressions together and adds a separator between them
FIELD	Returns the position of a value in a list of values
FIND_IN_SET	Returns the position of a string in a string list
FORMAT	Formats a number as a format of "#,###.##", rounding it to a certain number of decimal places
INSERT	Inserts a substring into a string at a specified position for a certain number of characters
INSTR	Returns the position of the first occurrence of a string in another string
LCASE	Converts a string to lower-case
LEFT	Extracts a substring from a string (starting from left)
LENGTH	Returns the length of the specified string (in bytes)
LOCATE	Returns the position of the first occurrence of a substring in a string
LOWER	Converts a string to lower-case
LPAD	Returns a string that is left-padded with a specified 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 a string
REPEAT	Repeats a string a specified number of times
REPLACE	Replaces all occurrences of a specified string
REVERSE	Reverses a string and returns the result
RIGHT	Extracts a substring from a string (starting from right)

Function	Description
[RPAD](#)	Returns a string that is right-padded with a specified string to a certain length
[RTRIM](#)	Removes trailing spaces from a string
[SPACE](#)	Returns a string with a specified number of spaces
[STRCMP](#)	Tests whether two strings are the same
[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 the substring of *string* before *number* of occurrences of *delimiter*
[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 a number or the arc tangent of n and m
[ATAN2](#)	Returns the arc tangent of n and m
[AVG](#)	Returns the average value of an expression
[CEIL](#)	Returns the smallest integer value that is greater than or equal to a number
[CEILING](#)	Returns the smallest integer value that is greater than or equal to a number
[COS](#)	Returns the cosine of a number
[COT](#)	Returns the cotangent of a number
[COUNT](#)	Returns the number of records in a select query
[DEGREES](#)	Converts a radian value into degrees
[DIV](#)	Used for integer division
[EXP](#)	Returns e raised to the power of number
[FLOOR](#)	Returns the largest integer value that is less than or equal to a number
[GREATEST](#)	Returns the greatest value in a list of expressions
[LEAST](#)	Returns the smallest value in a list of expressions
[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 base-10 logarithm of a number
[LOG2](#)	Returns the base-2 logarithm of a number

MAX	Returns the maximum value of an expression
MIN	Returns the minimum value of an expression
MOD	Returns the remainder of n divided by m
PI	Returns the value of PI displayed with 6 decimal places
POW	Returns m raised to the nth power
POWER	Returns m raised to the nth power
RADIANS	Converts a value in degrees to radians
RAND	Returns a random number or a random number within a range
ROUND	Returns a number rounded to a certain number of decimal places
SIGN	Returns a value indicating the sign of a number
SIN	Returns the sine of a number
SQRT	Returns the square root of a number
SUM	Returns the summed value of an expression
TAN	Returns the tangent of a number
TRUNCATE	Returns a number truncated to a certain number of decimal places

MySQL Date Functions

Function	Description
ADDDATE	Returns a date after a certain time/date interval has been added
ADDTIME	Returns a time/datetime after a certain time interval has been added
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 value from a date or datetime expression
DATEDIFF	Returns the difference in days between two date values
DATE_ADD	Returns a date after a certain time/date interval has been added
DATE_FORMAT	Formats a date as specified by a format mask
DATE_SUB	Returns a date after a certain time/date interval has been subtracted
DAY	Returns the day portion of a date value
DAYNAME	Returns the weekday name for a date
DAYOFMONTH	Returns the day portion of a date value
DAYOFWEEK	Returns the weekday index for a date value

DAYOFYEAR	Returns the day of the year for a date value
EXTRACT	Extracts parts from a date
FROM_DAYS	Returns a date value from a numeric representation of the day
HOUR	Returns the hour portion of a date value
LAST_DAY	Returns 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	Returns the date for a certain year and day-of-year value
MAKETIME	Returns the time for a certain hour, minute, second combination
MICROSECOND	Returns the microsecond portion of a date value
MINUTE	Returns the minute portion of a date value
MONTH	Returns the month portion of a date value
MONTHNAME	Returns the full month name for a date
NOW	Returns the current date and time
PERIOD_ADD	Takes a period and adds a specified number of months to it
PERIOD_DIFF	Returns the difference in months between two periods
QUARTER	Returns the quarter portion of a date value
SECOND	Returns the second portion of a date value
SEC_TO_TIME	Converts numeric seconds into a time value
STR_TO_DATE	Takes a string and returns a date specified by a format mask
SUBDATE	Returns a date after which a certain time/date interval has been subtracted
SUBTIME	Returns a time/datetime value after a certain time interval has been subtracted
SYSDATE	Returns the current date and time
TIME	Extracts the time value from a time/datetime expression
TIME_FORMAT	Formats a time as specified by a format mask
TIME_TO_SEC	Converts a time value into numeric seconds
TIMEDIFF	Returns the difference between two time/datetime values
TIMESTAMP	Converts an expression to a datetime value and if specified adds an optional time interval to the value
TO_DAYS	Converts a date into numeric days
WEEK	Returns the week portion of a date value
WEEKDAY	Returns the weekday index for a date value
WEEKOFYEAR	Returns the week of the year for a date value
YEAR	Returns the year portion of a date value
YEARWEEK	Returns the year and week for a date value

MySQL Advanced Functions

Function	Description
BIN	Converts a decimal number to a binary number
BINARY	Converts a value to a binary string
CASE	Lets you evaluate conditions and return a value when the first condition is met
CAST	Converts a value from one datatype to another datatype
COALESCE	Returns the first non-null expression in a list
CONNECTION_ID	Returns the unique connection ID for the current connection
CONV	Converts a number from one number base to another
CONVERT	Converts a value from one datatype to another, or one character set to another
CURRENT_USER	Returns the user name and host name for the MySQL account used by the server to authenticate the current client
DATABASE	Returns the name of the default database
IF	Returns one value if a condition is TRUE, or another value if a condition is FALSE
IFNULL	Lets you to return an alternate value if an expression is NULL
ISNULL	Tests whether an expression is NULL
LAST_INSERT_ID	Returns the first AUTO_INCREMENT value that was set by the most recent INSERT or UPDATE statement
NULLIF	Compares two expressions
SESSION_USER	Returns the user name and host name for the current MySQL user
SYSTEM_USER	Returns the user name and host name for the current MySQL user
USER	Returns the user name and host name for the current MySQL user
VERSION	Returns the version of the MySQL database