

MySQL: Functions by Category

For easy reference, we have provided a list of all MySQL functions. The list of MySQL functions is sorted into the type of function based on categories such as string, advanced, numeric/mathematical, date/time, and encryption/compression functions.

These functions can be used in SQL statements or queries in MySQL. Or, they can be used within the programming environment provided by the MySQL database, such as stored procedures, functions, triggers, etc.

Below is the list of MySQL functions, sorted by category (ie: type of function).

String Functions

String Functions

| | | |
|------------------|----------|-----------------|
| ASCII | LEFT | RIGHT |
| CHAR_LENGTH | LENGTH | RPAD |
| CHARACTER_LENGTH | LOCATE | RTRIM |
| CONCAT | LOWER | SPACE |
| CONCAT_WS | LPAD | STRCMP |
| FIELD | LTRIM | SUBSTR |
| FIND_IN_SET | MID | SUBSTRING |
| FORMAT | POSITION | SUBSTRING_INDEX |
| INSERT | REPEAT | TRIM |
| INSTR | REPLACE | UCASE |
| LCASE | REVERSE | UPPER |



Most used functions:

-- char_length

```
select char_length('RYRTYTRYTRYRRRRRTERRRRRRRRR');
```

```
SELECT * FROM customers;
```

```
SELECT CustomerName,char_length(CustomerName) FROM customers;
```

-- CONCAT

```
SELECT CONCAT('RAVI',' JOHNEY',' KRISHNA');
```

```
SELECT * FROM customers;
```

```
SELECT CONCAT(CUSTOMERNAME,' - ',CITY) FROM customers;
```

-- GROUP_CONCAT

```
SELECT GROUP_CONCAT(CUSTOMERNAME) FROM customers;
```

```
SELECT GROUP_CONCAT(CITY) FROM customers;
```

-- FIND_IN_SET

```
SELECT * FROM customers WHERE FIND_IN_SET('RRRRR',CustomerName);
```

```
SELECT * FROM customers WHERE FIND_IN_SET('RRRRR',(SELECT  
GROUP_CONCAT(CustomerName) FROM customers WHERE CustomerID<5));
```

-- INSTR

```
SELECT INSTR('TRAIING','T');
```

```
SELECT INSTR('TRAIING','G');
```

```
SELECT CUSTOMERNAME,INSTR(CUSTOMERNAME,'T') FROM customers;
```

-- LENGTH

```
SELECT LENGTH('DATABASE');
```

```
SELECT CUSTOMERNAME,LENGTH(CUSTOMERNAME) FROM customers;
```

-- LOWER

```
SELECT LOWER('DATABASE');
```

```
SELECT CUSTOMERNAME,LOWER(CUSTOMERNAME) FROM customers;
```

-- UPPER

```
SELECT UPPER('Database');
```

```
SELECT CUSTOMERNAME,UPPER(CUSTOMERNAME) FROM customers;
```

-- LTRIM

```
SELECT LTRIM(' Database ');
```

-- RTRIM

```
SELECT RTRIM(' Database ');
```

-- REPLACE

```
SELECT REPLACE('RAVI JOHNEY KRISHNA','RAVI','MAHIPAL');
```

```
SELECT REPLACE('RAVI JOHNEY KRISHNA','JOHNEY','MAHIPAL');
```

-- STRCMP

```
SELECT STRCMP('DB','DB1'); -- -1
```

```
SELECT STRCMP('DB','DB'); -- 0
```

-- SUBSTR

```
SELECT SUBSTR('RAVI JOHNEY KRISHNA',10);
```

```
SELECT SUBSTR('RAVI JOHNEY KRISHNA',1,10);
```

```
SELECT SUBSTR(CUSTOMERNAME,1,10) FROM customers;
```

-- TRIM

LRTIM+RTRIM

```
SELECT TRIM(' DATABASE ');
```

➤ Numeric/Math Functions

| | | |
|---------|----------|----------|
| ABS | DIV | PI |
| ACOS | EXP | POW |
| ASIN | FLOOR | POWER |
| ATAN | GREATEST | RADIANS |
| ATAN2 | LEAST | RAND |
| AVG | LN | ROUND |
| CEIL | LOG | SIGN |
| CEILING | LOG10 | SIN |
| COS | LOG2 | SQRT |
| COT | MAX | SUM |
| COUNT | MIN | TAN |
| DEGREES | MOD | TRUNCATE |

-- AVG = SUM/TOTAL

```
SELECT * FROM products;
```

```
SELECT AVG(PRICE) FROM products;
```

```
SELECT SupplierID,AVG(PRICE) AS AVG_PRICE FROM products
```

```
GROUP BY SupplierID;
```

-- CEIL

```
SELECT CEIL(56.576765); -- 57
```

```
SELECT CEIL(54.1111); -- 55
```

-- COUNT

```
SELECT * FROM products;
```

```
SELECT COUNT(*) FROM products;
```

```
SELECT SupplierID,COUNT(*) FROM products
```

```
GROUP BY SupplierID;
```

-- FLOOR

```
SELECT FLOOR(56.576765); -- 56
```

```
SELECT FLOOR(54.1111); -- 54
```

-- MAX

```
SELECT * FROM products;
```

```
SELECT MAX(PRICE) FROM products; -- 264
```

```
SELECT CategoryID,MAX(PRICE) FROM products  
GROUP BY CategoryID;
```

-- MIN

```
SELECT * FROM products;
```

```
SELECT MIN(PRICE) FROM products; -- 264
```

```
SELECT CategoryID,MIN(PRICE) FROM products  
GROUP BY CategoryID;
```

-- POWER

```
SELECT POWER(2,2);
```

```
SELECT POWER(4,4);
```

```
SELECT POWER(256,4);
```

-- RAND

```
SELECT RAND(10);
```

```
SELECT RAND();
```

-- ROUND

```
SELECT ROUND(34.677); -- 35
```

```
SELECT ROUND(34.477); -- 34
```

-- SUM

```
SELECT * FROM products;
```

```
SELECT SUM(PRICE) FROM products; -- 264
```

```
SELECT CategoryID,SUM(PRICE) FROM products  
GROUP BY CategoryID;
```

-- TRUNCATE

```
SELECT truncate(45.7845645,2);
```

```
SELECT truncate(45.7845645,4);
```