

Contents

- 1. Count Function*
- 2. Max Function*
- 3. Min Function*
- 4. Avg Function*
- 5. Sum Function*
- 6. Sqrt Function*
- 7. Rand Function*

1. Count Function

MySQL COUNT function is the simplest function and very useful in counting the number of records, which are expected to be returned by a SELECT statement.

Example: Suppose you have the following table (customers):

```
SELECT * FROM customers;
```

	ID	NAME	AGE	ADDRESS
▶	1	Sameer	22	Basrah
	2	Ahmed	30	Basrah
	3	Samer	32	Basrah
	4	Hamed	32	Misan
	5	Ali	23	Basrah
	6	Kamil	41	Misan
	7	Salim	32	Basrah

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

	COUNT(*)
▶	7

OR

```
SELECT COUNT(*) NumberOfRecords FROM customers;
```

	NumberOfRecords
▶	7

Example: Find the number of customers with age greater than 30:

```
SELECT COUNT(*) NumberOfCustomers FROM customers  
Where AGE>30;
```

	NumberOfCustomers
▶	4

2. MAX Function

MySQL **MAX** function is used to find out the record with maximum value among a record set.

Example: Find the maximum age in customers table:

	ID	NAME	AGE	ADDRESS
▶	1	Sameer	22	Basrah
	2	Ahmed	30	Basrah
	3	Samer	32	Basrah
	4	Hamed	32	Misan
	5	Ali	23	Basrah
	6	Kamil	41	Misan
	7	Salim	32	Basrah

```
SELECT MAX(AGE) FROM customers;
```

	MAX(AGE)
▶	41

To print the name and the maximum age:

```
SELECT NAME,AGE FROM customers where  
AGE = (select max(age) from customers);
```

	NAME	AGE
▶	Kamil	41

3. MIN Function

MySQL **MIN** function is used to find out the record with minimum value among a record set.

Example: Find the minimum age in customers table:

	ID	NAME	AGE	ADDRESS
▶	1	Sameer	22	Basrah
	2	Ahmed	30	Basrah
	3	Samer	32	Basrah
	4	Hamed	32	Misan
	5	Ali	23	Basrah
	6	Kamil	41	Misan
	7	Salim	32	Basrah

```
SELECT MIN(AGE) FROM customers;
```

	MIN(AGE)
▶	22

Example: Print name and age of minimum age and maximum age in customer table:

```
SELECT NAME,AGE FROM customers
WHERE AGE IN
((SELECT MIN(AGE)FROM customers),(SELECT MAX(AGE)FROM customers));
```

	NAME	AGE
▶	Sameer	22
	Kamil	41

4. AVG Function

MySQL **AVG** function is used to find out the average of a field in various records.

Example: Suppose based on the following table you want to calculate average of all the ages then you can do so by using the following command:

	ID	NAME	AGE	ADDRESS
▶	1	Sameer	22	Basrah
	2	Ahmed	30	Basrah
	3	Samer	32	Basrah
	4	Hamed	32	Misan
	5	Ali	23	Basrah
	6	Kamil	41	Misan
	7	Salim	32	Basrah

```
SELECT AVG(AGE) as Average FROM customers;
```

	Average
▶	30.2857

5. SUM Function

MySQL **SUM** function is used to find out the sum of a field in various records.

Example: suppose you have the following table (orders):

	Ord_ID	DATE	AMOUNT	CUSTOMER_ID
▶	1	2010-10-10 00:00:00	200	1
	2	2010-10-10 00:00:00	300	1
	3	2010-10-10 00:00:00	100	2
	4	2010-12-21 00:00:00	100	2
	5	2010-12-21 00:00:00	200	4
	6	2010-12-21 00:00:00	100	5
	7	2010-12-21 00:00:00	200	5
	8	2010-12-21 00:00:00	300	6

Now, suppose based on the above table you want to calculate total of all the AMOUNTs, then you can do so by using the following command:

```
SELECT SUM(AMOUNT) as TOTAL FROM orders;
```

	TOTAL
▶	1500

6. SQRT Function

MySQL **SQRT** function is used to find out the square root of any number. You can use SELECT statement to find out square root of any number as follows:

Example: To display the square root of any value:

```
SELECT sqrt(9) as SQRT;
```

	SQRT
▶	3

7. RAND Function

MySQL has a **RAND** function that can be invoked to produce random numbers between 0 and 1:

Example:

```
SELECT RAND()as Random;
```

	Random
▶	0.1770473021800139

8. CONCAT Function

MySQL **CONCAT** function is used to concatenate two strings to form a single string. Try out the following example:

```
SELECT CONCAT('Ali','Ahmed')as String;
```

	String
▶	AliAhmed