

3.3

String Functions

CONCAT

- Combines a list of strings into a single string.
- Can include column values and literal values.
- In MySQL literal values can be enclosed with either single (') or double quotes (") .

Example:

```
USE world;  
SELECT CONCAT(name, ', ', continent)  
FROM country;
```

Results:

```

1 USE world;
2 • SELECT CONCAT(name, ', ', continent)
3 FROM country;

```

CONCAT(name, ', ', continent)
Aruba, North America
Afghanistan, Asia
Angola, Africa
Anguilla, North America
Albania, Europe
Andorra, Europe
Netherlands Antilles, North America
United Arab Emirates, Asia

RIGHT, LEFT

- The RIGHT and LEFT functions have two parameters. The first is a string and the second is the number of characters to be returned.
- The RIGHT function starts counting from the right side of the string. • The LEFT function starts counting from the left side of the string.

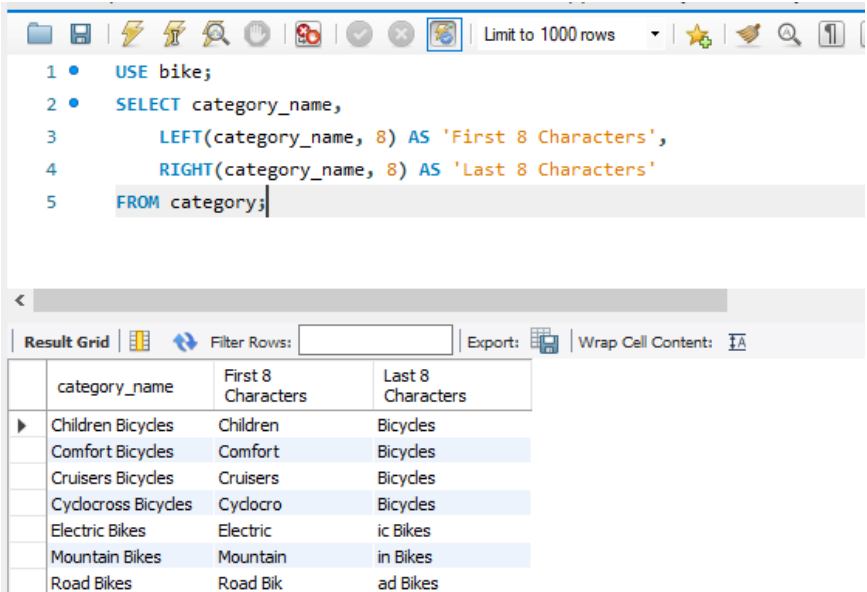
Table 7. RIGHT, LEFT functions

Function	Type	Example	Result
RIGHT(string, num. characters)	string	RIGHT('Salmon', 3)	mon
LEFT(string, num. characters)	string	LEFT('Salmon', 3)	Sal

Example:

```
USE bike;
SELECT category_name,
       LEFT(category_name, 8) AS 'First 8 Characters',
       RIGHT(category_name, 8) AS 'Last 8 Characters'
FROM category;
```

Results:



The screenshot shows a MySQL query editor window. The query is as follows:

```
1 • USE bike;
2 • SELECT category_name,
3     LEFT(category_name, 8) AS 'First 8 Characters',
4     RIGHT(category_name, 8) AS 'Last 8 Characters'
5 FROM category;
```

Below the query editor, the results are displayed in a table with the following columns: category_name, First 8 Characters, and Last 8 Characters. The results are as follows:

category_name	First 8 Characters	Last 8 Characters
Children Bicycles	Children	Bicycles
Comfort Bicycles	Comfort	Bicycles
Cruisers Bicycles	Cruisers	Bicycles
Cydocross Bicycles	Cydocro	Bicycles
Electric Bikes	Electric	ic Bikes
Mountain Bikes	Mountain	in Bikes
Road Bikes	Road Bik	ad Bikes

TRIM, LTRIM, RTRIM

- The TRIM function will remove leading and trailing spaces from a string.
- The LTRIM function will remove leading spaces from a string.
- The RTRIM function will remove trailing spaces from a string.

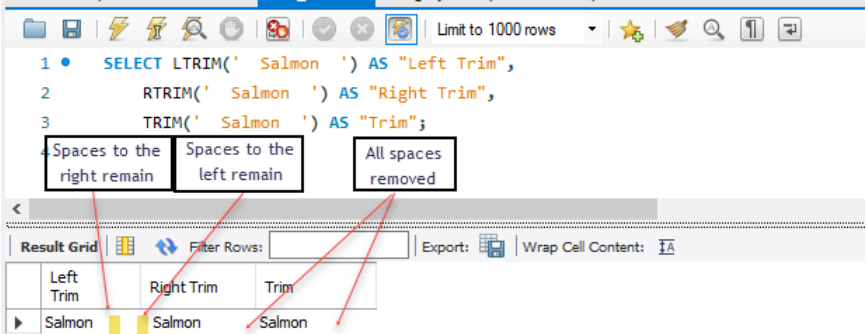
Table 8. TRIM functions

Function	Type	Example	Result
TRIM(string)	string	TRIM(' Salmon ')	'salmon'
LTRIM(string)	string	LEFT('Salmon ')	'salmon '
RTRIM(string)	string	RIGHT(' Salmon')	' salmon'

Example:

```
SELECT LTRIM(' Salmon ') AS "Left Trim",
       RTRIM(' Salmon ') AS "Right Trim",
       TRIM(' Salmon ') AS "Trim";
```

Results:



FORMAT

- FORMAT() accepts a decimal but returns a comma formatted string.

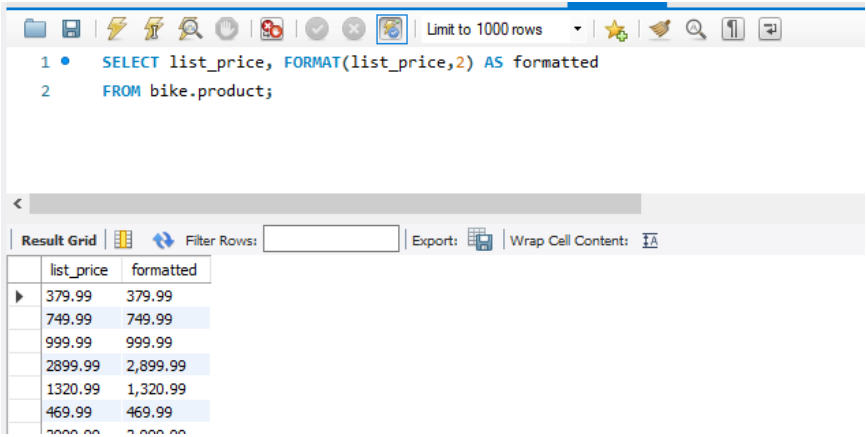
Table 9. FORMAT functions

Function	Type	Example	Result
FORMAT(number, decimal)	string	FORMAT(1234.342, 2)	-356

Code Sample:

```
SELECT FORMAT(list_price,2)
FROM bike.product;
```

Results:



LOWER, UPPER

- LOWER() converts all characters to lower case.
- UPPER() converts all characters to upper case.

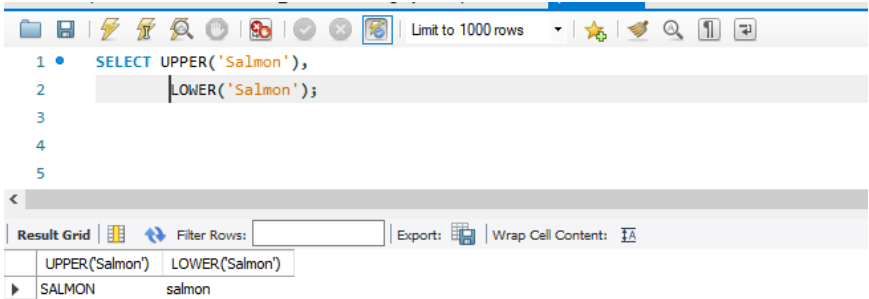
Table 9. LOWER, UPPER functions

Function	Type	Example	Result
LOWER(string)	string	LOWER('Salmon')	'salmon'
UPPER(string)	string	UPPER('Salmon')	'SALMON'

Example:

```
SELECT UPPER('Salmon'),
       LOWER('Salmon');
```

Results:



LOCATE, LENGTH, SUBSTRING

LOCATE(), and LENGTH() accept a string but return an integer. •
SUBSTRING() accepts a string and returns a string.

Table 9. LOCATE. LENGTH, SUBSTRING functions

Function	Type	Example	Result
LOCATE(find,search[,start])	string	LOCATE('al','salmon',1)	2
LENGTH(str)	string	LENGTH('salmon')	6
SUBSTRING(str,start[,length])	string	SUBSTRING('salmon',3,999)	'lmon'

Example:

```
SELECT LOCATE('al', 'salmon', 1),
       LENGTH('salmon'),
       SUBSTRING('salmon', 3, 999);
```

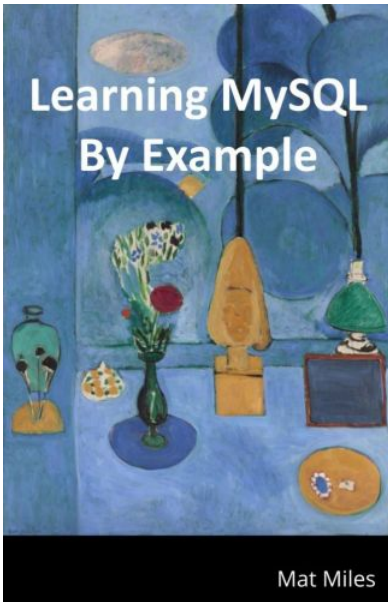
Results:

The screenshot shows a MySQL query editor window. The query is as follows:

```
1 • SELECT LOCATE('al','salmon',1),
2     LENGTH('salmon'),
3     SUBSTRING('salmon',3,999);
4
5
```

Below the query editor is a "Result Grid" section. It includes a "Filter Rows:" input field, an "Export:" button, and a "Wrap Cell Content:" checkbox. The results are displayed in a table with the following content:

	LOCATE('al','salmon',1)	LENGTH('salmon')	SUBSTRING('salmon',3,999)
▶ 2		6	lmon



Miles, M. (2021). *Learning MySQL By Example*. EdTech Books. https://edtechbooks.org/learning_mysql