

3.3

String Functions

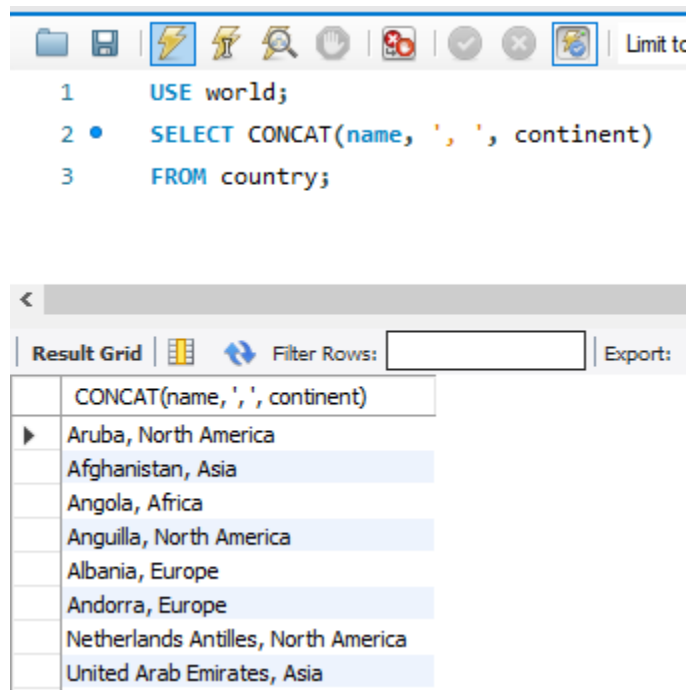
CONCAT

- 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:



The screenshot shows a MySQL query editor window with a toolbar at the top. The query text is as follows:

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

Below the query editor is a "Result Grid" window. It has a toolbar with "Result Grid", "Filter Rows:" (with an input field), and "Export:". The grid displays the results of the query:

	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.

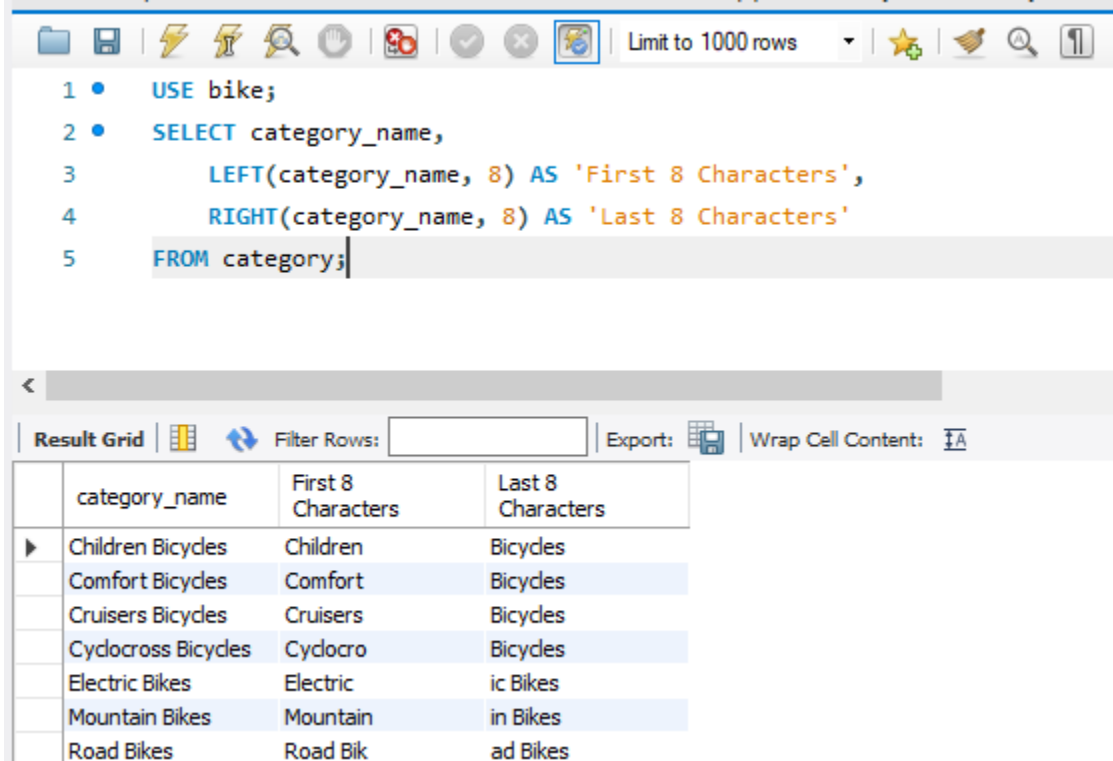
Table 7. RIGHT, LEFT functions

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 with the following SQL code:

```
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 code, 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
Cyclocross Bicycles	Cyclocro	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.

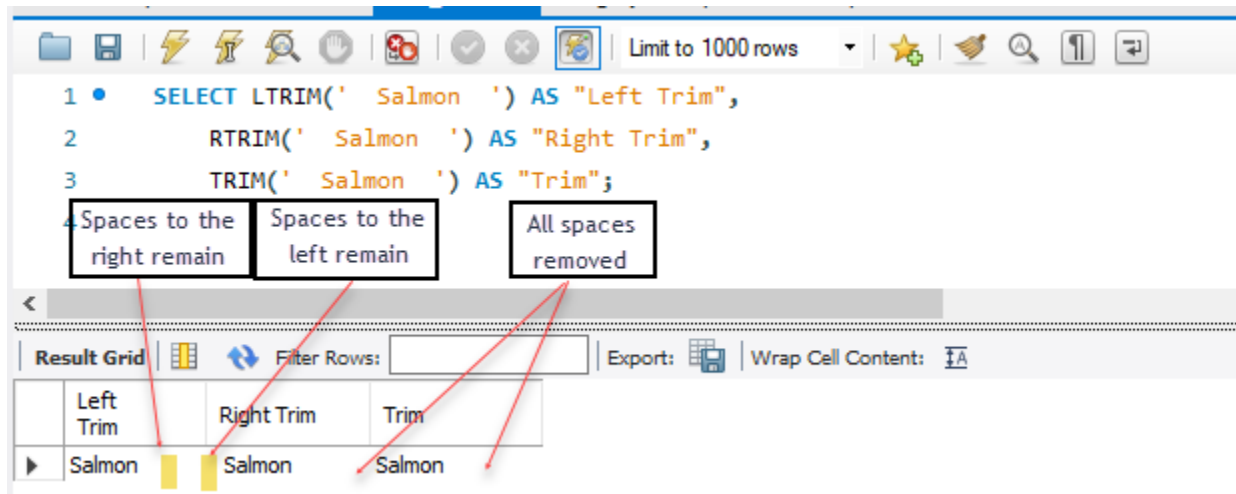
Table 8. TRIM functions

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.

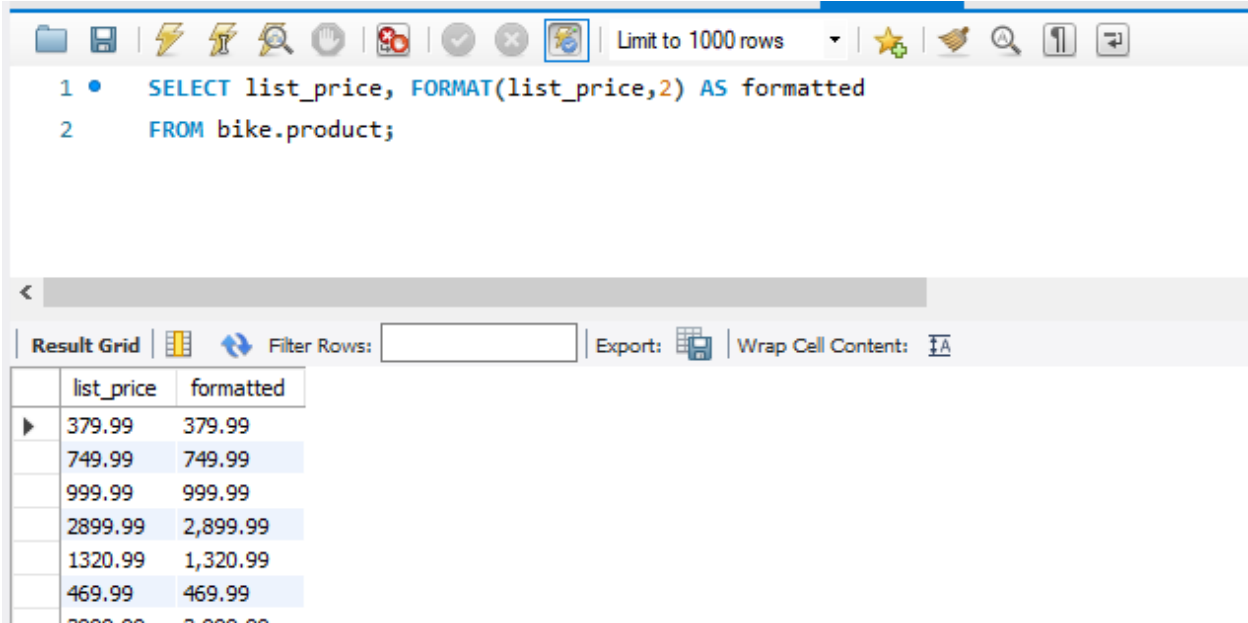
Table 9. FORMAT functions

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.

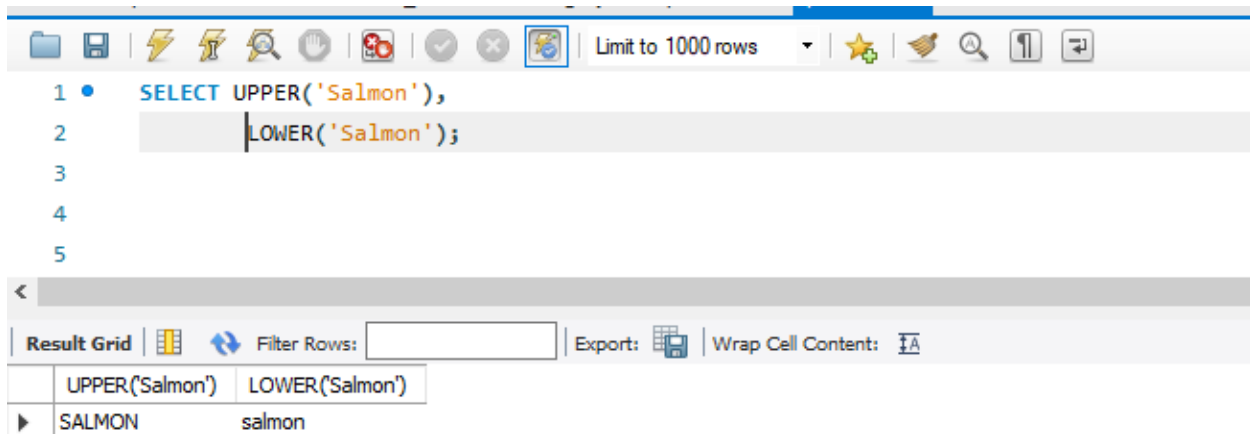
Table 9. LOWER, UPPER functions

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);
```

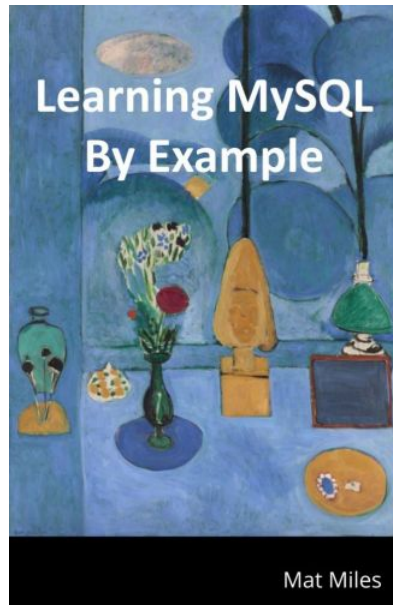
Results:

The screenshot shows a MySQL query editor window. The top toolbar includes icons for file operations, execution, search, and window management. The query text 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 result grid contains one row of data:

	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