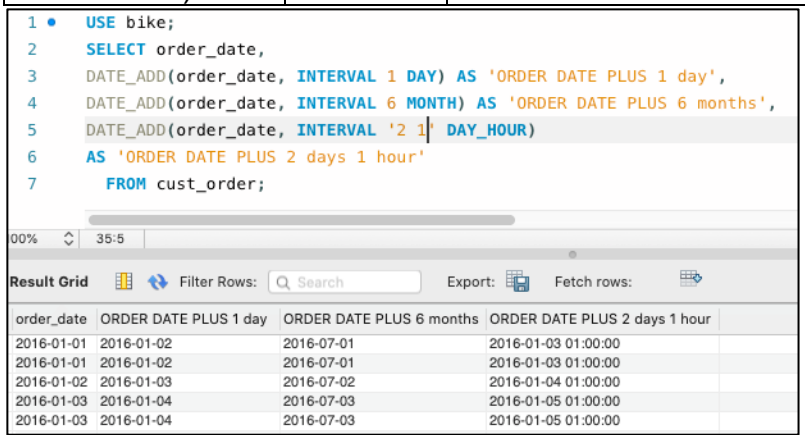
Function List for CIT 111

Function	Type	Example	Result
NOW() * Returns current local date and time.	date/time	NOW()	ex. '2020-02-24 09:31:31'
DATE(date) * A formatting function	date/time	DATE('2020-01-01 11:31:31')	'2020-01-01'
CURRENT_DATE() * Returns current local date	date	CURRENT_DATE	'2020-02-24'
CURRENT_TIME() * Returns current local time.	time	CURRENT_TIME	'11:52:10'
UTC_DATE() * Returns current UTC date.	date	UTC_DATE	'2020-02-24'
UTC_TIME() * Returns current UTC time.	time	UTC_TIME	'18:52:10'

Note: CURRENT_DATE, CURRENT_TIME, UTC_DATE, UTC_TIME can be used with parentheses or not. They accept no parameters.

Function	Type	Example	Result
DATE_ADD(date, interval unit)	Date, Datetime	DATE_ADD('2020-01-01', interval 1 day)	'2020-01-02'



```
1 •  USE bike;
2    SELECT order_date,
3    DATE_ADD(order_date, INTERVAL 1 DAY) AS 'ORDER DATE PLUS 1 day',
4    DATE_ADD(order_date, INTERVAL 6 MONTH) AS 'ORDER DATE PLUS 6 months',
5    DATE_ADD(order_date, INTERVAL '2 1' DAY_HOUR)
6    AS 'ORDER DATE PLUS 2 days 1 hour'
7      FROM cust_order;
```

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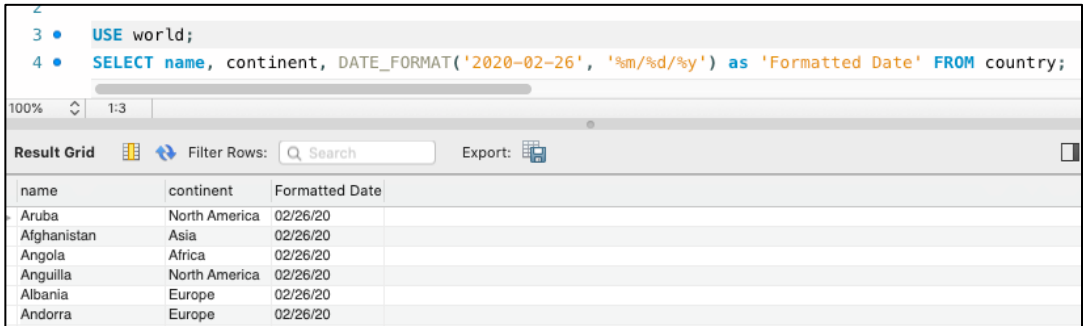
Result Grid | Filter Rows: Search | Export: | Fetch rows:

order_date	ORDER DATE PLUS 1 day	ORDER DATE PLUS 6 months	ORDER DATE PLUS 2 days 1 hour
2016-01-01	2016-01-02	2016-07-01	2016-01-03 01:00:00
2016-01-01	2016-01-02	2016-07-01	2016-01-03 01:00:00
2016-01-02	2016-01-03	2016-07-02	2016-01-04 01:00:00
2016-01-03	2016-01-04	2016-07-03	2016-01-05 01:00:00
2016-01-03	2016-01-04	2016-07-03	2016-01-05 01:00:00

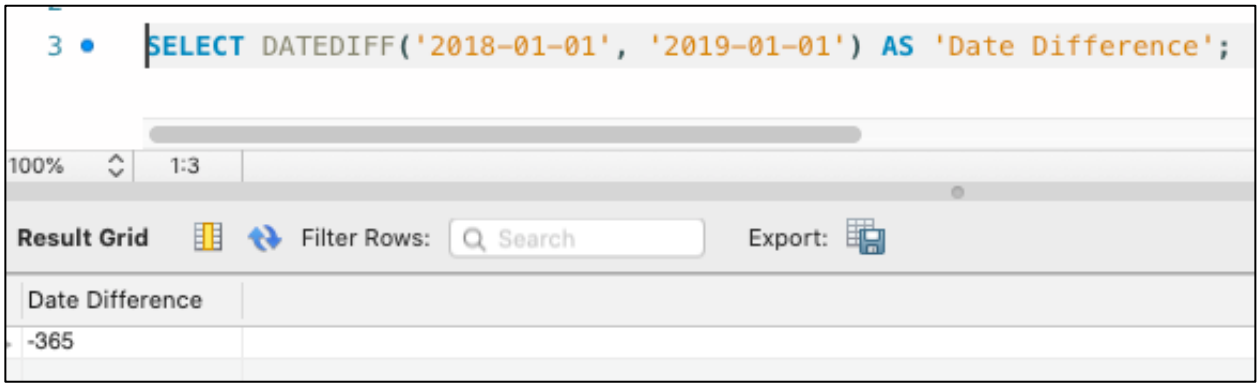
Function	Type	Example	Result
DATE_FORMAT	Date	DATE_FORMAT('2020-01-01', '%m%d/%Y')	01/01/2020

- Dates must be in quotes
- A DATE or DATETIME data type can be passed into DATE_FORMAT
- See w3schools.com/sql/func_mysql_date_format.asp for format descriptors



Function	Type	Example	Result
DATEDIFF(date1,date2)	Date	DATEDIFF('2018-01-01', '2019-01-01')	-365

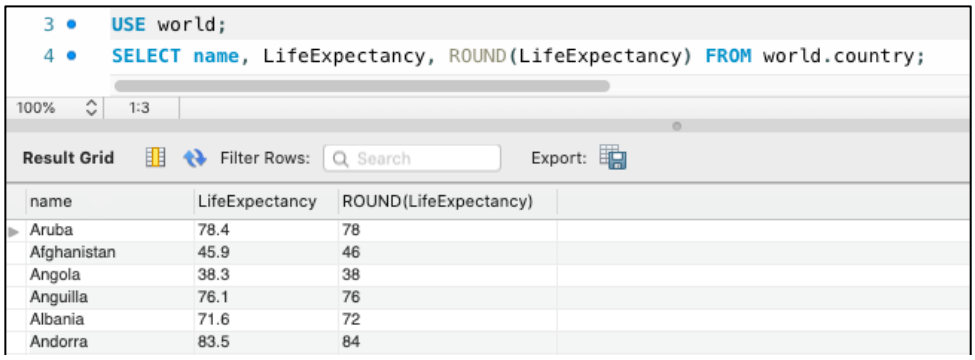
- The DATEDIFF function has two parameters. Both are dates.
- The value returned is an integer and is the number of days between the two dates.
- If you provide the latest date first the results will be positive. Otherwise, it will be negative.



Numeric Functions

Function	Type	Example	Result
ROUND(number [, length])	Number	ROUND(13.37, 1)	13.4

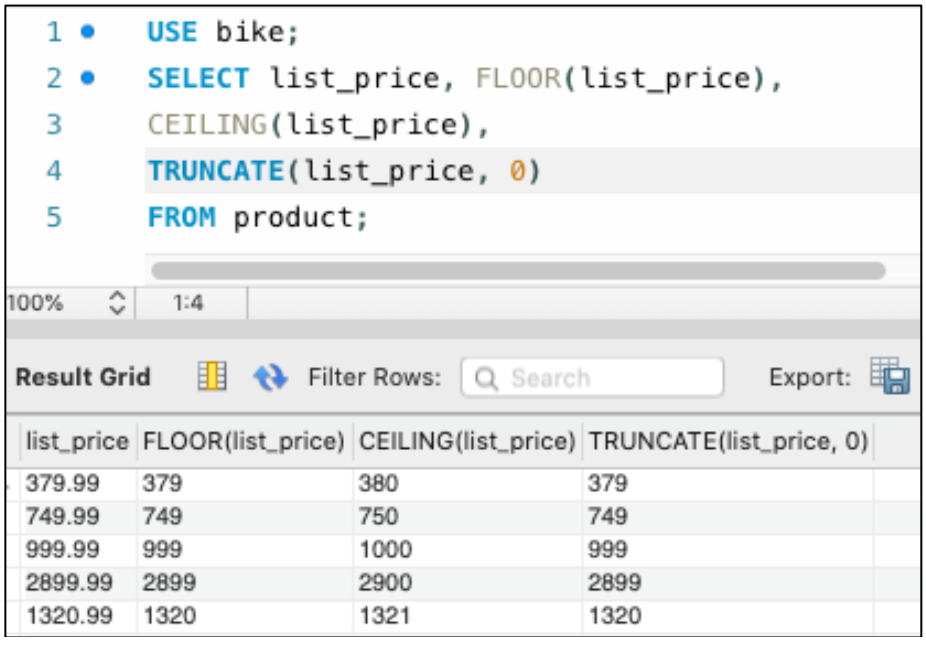
- The ROUND function has two parameters. The first is a number, usually a DECIMAL or a FLOAT. The second defines the number of decimals to which the number will be rounded.
- If no length is provided, the number is rounded to a whole number.



name	LifeExpectancy	ROUND(LifeExpectancy)
Aruba	78.4	78
Afghanistan	45.9	46
Angola	38.3	38
Anguilla	76.1	76
Albania	71.6	72
Andorra	83.5	84

Function	Type	Example	Result
FLOOR(number)	Number	FLOOR(7.7)	7
CEILING(number)	Number	CEILING(6.1)	7
TRUNCATE(number, length)	Number	TRUNCATE(7.9)	7

- FLOOR() will return the next lowest whole number no matter what the decimal point.
- CEILING() will return the next highest whole number no matter what the decimal point.
- TRUNCATE() will return the number truncated to the precision specified.

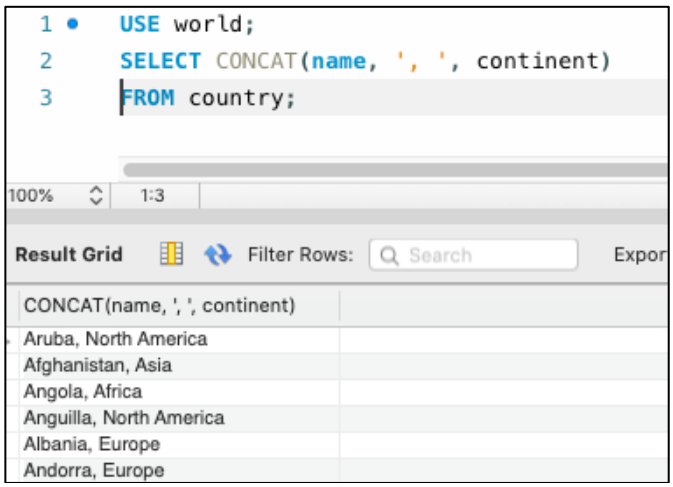


list_price	FLOOR(list_price)	CEILING(list_price)	TRUNCATE(list_price, 0)
379.99	379	380	379
749.99	749	750	749
999.99	999	1000	999
2899.99	2899	2900	2899
1320.99	1320	1321	1320

String Functions

Function	Type	Example	Result
CONCAT(string1[, string2])	String	CONCAT(“Salmon”, “Fish”)	Salmon Fish

- Can include column values and literal values.
- In MySQL literal values can be enclosed with either single (‘) or double quotes (“) .



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

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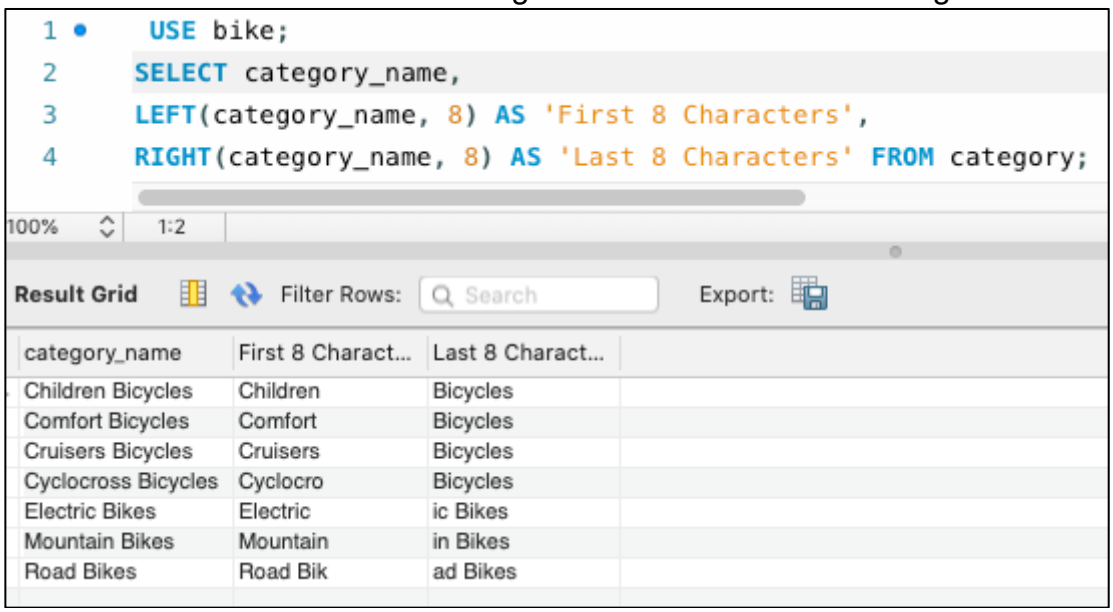
Result Grid Filter Rows: Search Expor

CONCAT(name, ', ', continent)
Aruba, North America
Afghanistan, Asia
Angola, Africa
Anguilla, North America
Albania, Europe
Andorra, Europe

Function	Type	Example	Result
RIGHT(string, # characters)	String	RIGHT(‘Salmon’,3)	mon
LEFT(string, # characters)	String	LEFT(‘Salmon’, 3)	Sal

- 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.



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

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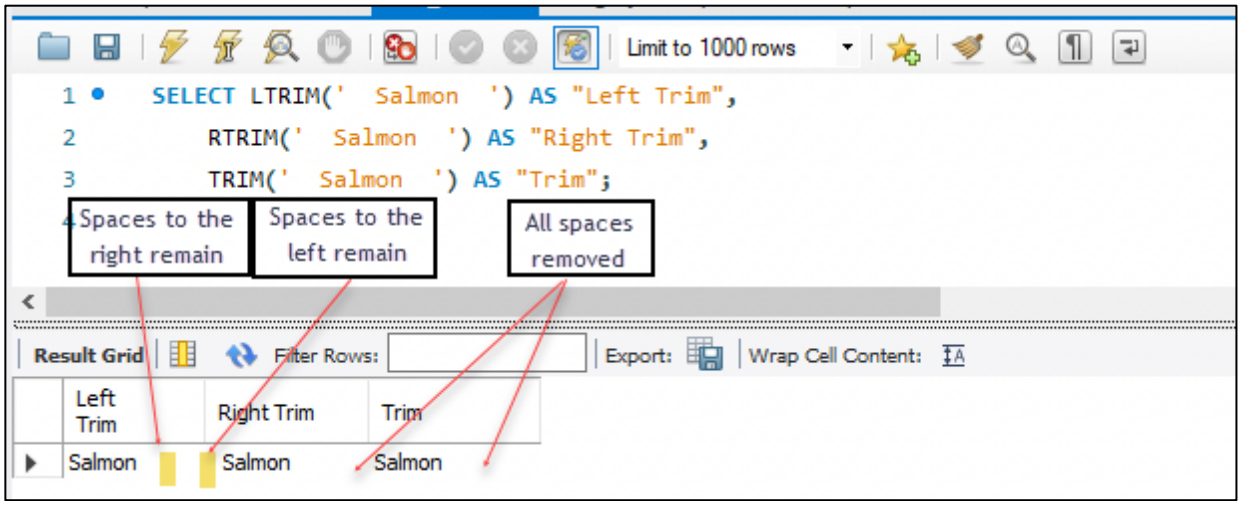
Result Grid Filter Rows: Search Export:

category_name	First 8 Charact...	Last 8 Charact...
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

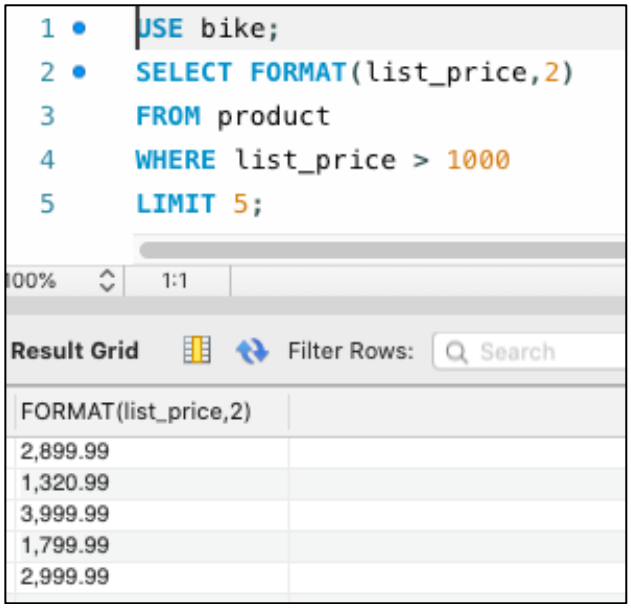
Function	Type	Example	Result
TRIM(string)	String	TRIM(‘ Salmon ‘)	‘Salmon’
LTRIM(string)	String	LTRIM(‘ Salmon ‘)	‘Salmon ’
RTRIM(string)	String	RTRIM(‘ Salmon ‘)	‘ Salmon’

- 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.



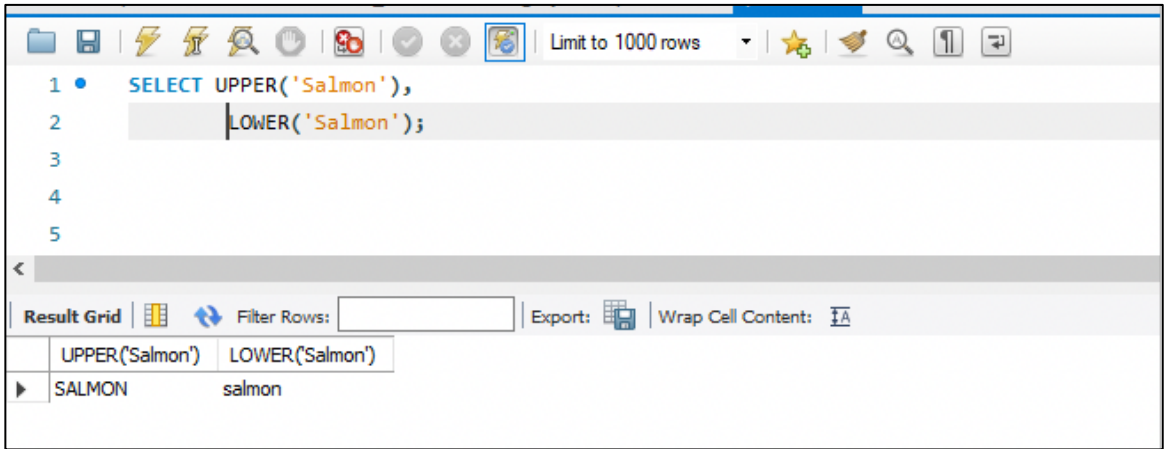
Function	Type	Example	Result
FORMAT(number, decimal)	String	FORMAT(1234.342, 2)	1,234.34

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



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

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



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

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