5.1

Aggregate Functions

Aggregate Functions

- Aggregate functions are synonymous with column functions.
- A summary query uses at least on column function.
- AVG, SUM return numeric values.
- MIN, MAX, COUNT can return numeric, date, or string values
- All values are included in aggregate functions by default unless you specify the DISTINCT keyword
- Duplicate rows are excluded in all aggregate functions with the exception of COUNT(*)
- ***** IF YOU CODE AN AGGREGATE FUNCTION IN THE SELECT STATEMENT, YOU CANNOT ALSO INCLUDE NON-AGGREGATE FUNCTIONS IN THE SELECT STATEMENT UNLESS THOSE NON-AGGREGATE COLUMNS ARE INCLUDED IN A GROUP BY CLAUSE

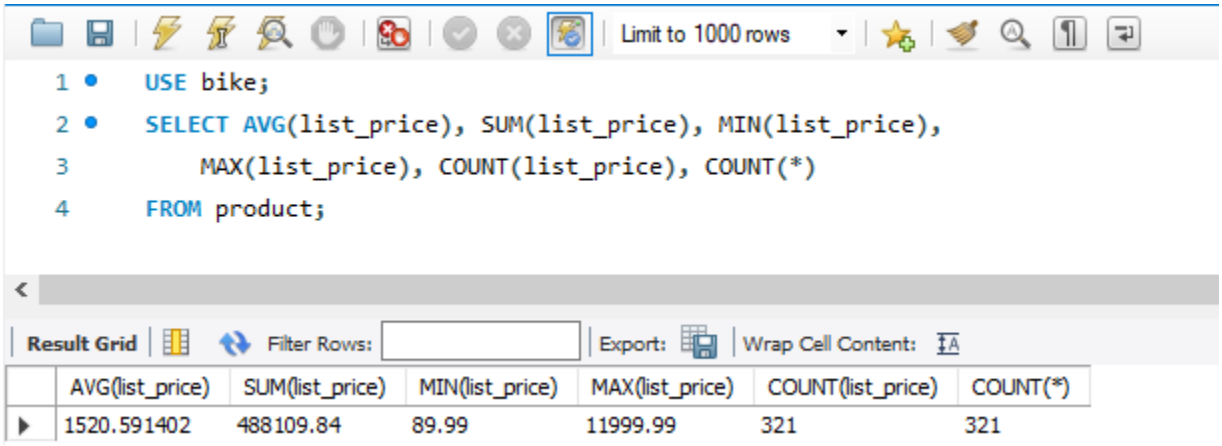
Table 1. Aggregate Functions List

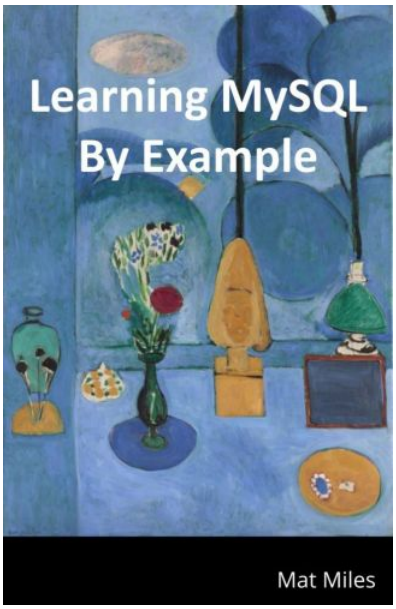
Aggregate Function	**Output data-type**	**Result**
AVG([DISTINCT] *column_values*)	numeric	The average of the non-null columns in the expression
SUM([DISTINCT] *column_values*)	numeric	The total of the non-null columns in the expression
MIN([DISTINCT] *column_values*)	numeric, date, string	The lowest value off the non-null columns in the expression
MAX([DISTINCT] *column_values*)	numeric, date, string	The highest value of the non-null columns in the expression
COUNT([DISTINCT] *column_values*)	numeric	The number of the non-null columns in the expression
COUNT(*)	numeric	The number of rows returned by the query

Code Sample:

```
USE bike;
SELECT AVG(list_price), SUM(list_price), MIN(list_price),
    MAX(list_price), COUNT(list_price), COUNT(*)
FROM product;
```

Output:


Limit to 1000 rows
1 • USE bike;
2 • SELECT AVG(list_price), SUM(list_price), MIN(list_price),
3 MAX(list_price), COUNT(list_price), COUNT(*)
4 FROM product;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
AVG(list_price) SUM(list_price) MIN(list_price) MAX(list_price) COUNT(list_price) COUNT(*)
1520.591402 488109.84 89.99 11999.99 321 321



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