

AGGREGATE FUNCTIONS IN MYSQL

WHAT, WHY AND HOW?

November 30, 2021

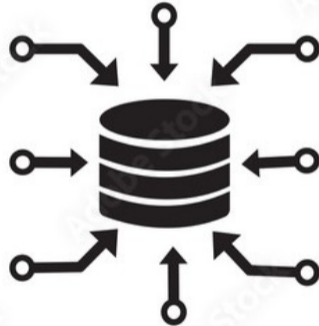
We are here to understand...

- **What** are aggregate functions?
- **Why** use aggregate functions?
- The most common aggregate functions in detail.
 - count()
 - sum()
 - average()
 - min()
 - max()
- **How** to use aggregate functions in MYSQL?
 - Simple queries to begin with!
 - A few tricky queries to end with!

The WHAT question

A function which

- Groups together values of multiple rows as input
- Returns a significant single value as output

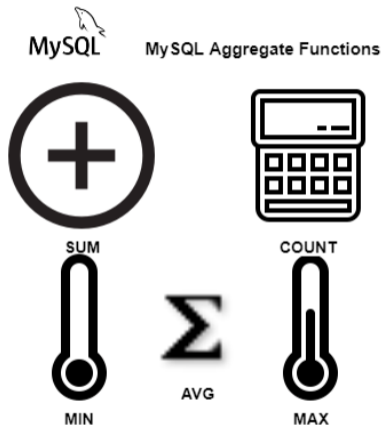


The WHY question

Organisations interested in knowing whole figures, not individual details. Produces summarised data like:

- Average working hours of all employees in ABC firm
- Most rented movies in Netflix
- Highest single-day increase in Apple's share value

Common MySQL aggregate functions



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¹<https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html>

A toy dataset

Consider the following employee table

Name	Occupation	Working date	Working hrs
Aditya	Data Scientist	2023-10-04	12
Krishna	Data Engineer	2023-10-04	10
Moumi	Software Developer	2023-10-04	13
Rishika	Analyst	2023-10-04	14
Soham	Researcher	2023-10-04	12
Sucheta	ML Engineer	2023-10-04	11

A few dry-run exercises

Agg. Func.	Description	Query
count()	Number of rows, including rows with NULL values in a group	SELECT COUNT(Name) FROM employee;
sum()	Total summed values (Non-NULL) in a set	SELECT SUM(Working hrs) FROM employee;
average()	Average value of an expression	SELECT AVG(Working hrs) FROM employee;
min()	Minimum (lowest) value in a set	SELECT MIN(Working hours) FROM employee;
max()	Maximum (highest) value in a set	SELECT MAX(Working hrs) FROM Employee;

It's live MySQL time!

Any questions before we switch to the live MySQL working zone???