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SQL Aggregate Functions in SQL\*Plus (Oracle) & MySQL

Aggregate functions perform calculations on multiple rows and return a **single** value. These functions are useful in **summarizing** data, such as totals, averages, counts, etc.

Below are detailed examples covering all aggregate functions in **SQL\*Plus (Oracle)** and

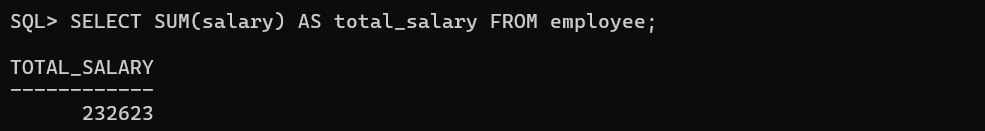
**MySQL**.

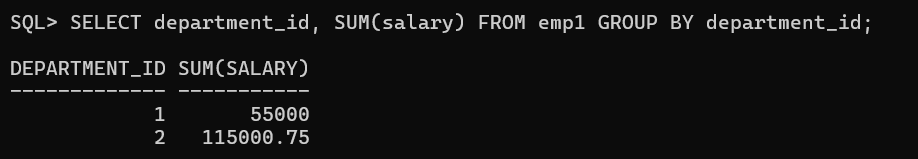
# Aggregate Functions in SQL\*Plus (Oracle)

## SUM() – Total of a Column

SELECT SUM(salary) AS total\_salary FROM employees; -- Total salary of all employees

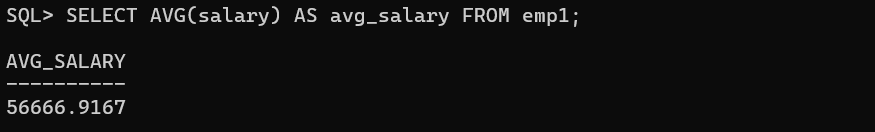
SELECT department\_id, SUM(salary) FROM employees GROUP BY department\_id; -- Total salary per department

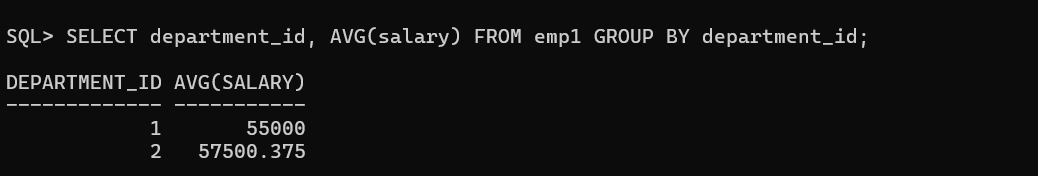




## AVG() – Average of a Column

SELECT AVG(salary) AS avg\_salary FROM employees; -- Average salary SELECT department\_id, AVG(salary) FROM employees GROUP BY department\_id; -- Average salary per department

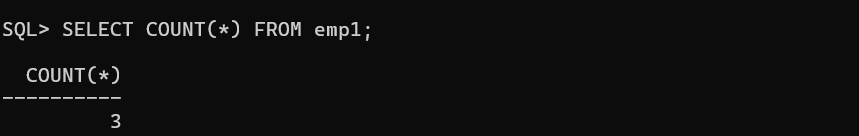




## COUNT() – Counting Rows

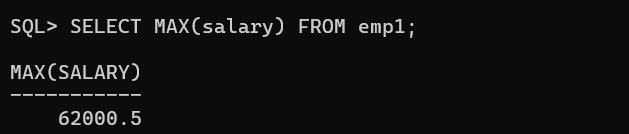
SELECT COUNT(\*) FROM employees; -- Total number of employees

SELECT COUNT(employee\_id) FROM employees WHERE department\_id = 10; -- Count employees in department 10



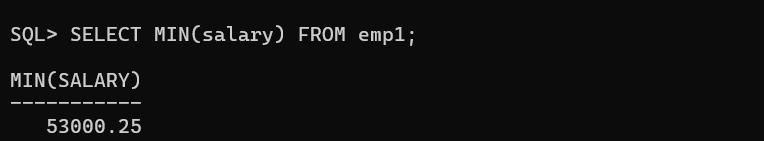
## MAX() – Maximum Value

SELECT MAX(salary) FROM employees; -- Highest salary in the company SELECT department\_id, MAX(salary) FROM employees GROUP BY department\_id; -- Highest salary per department



## MIN() – Minimum Value

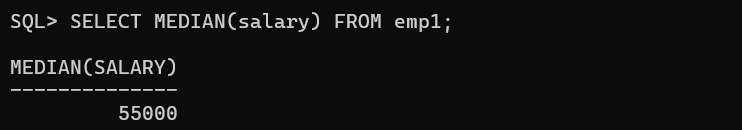
SELECT MIN(salary) FROM employees; -- Lowest salary in the company SELECT department\_id, MIN(salary) FROM employees GROUP BY department\_id; -- Lowest salary per department



## 

## MEDIAN() – Median Value (Oracle-Only)

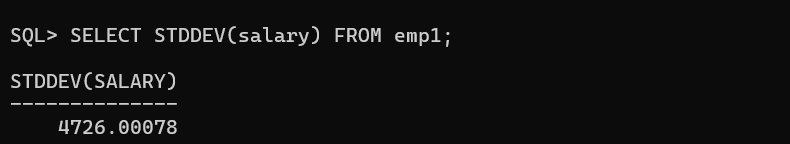
SELECT MEDIAN(salary) FROM employees; -- Median salary of all employees



## STDDEV() – Standard Deviation

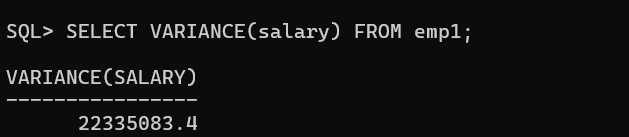
SELECT STDDEV(salary) FROM employees; -- Standard deviation of salaries

SELECT department\_id, STDDEV(salary) FROM employees GROUP BY department\_id; -- Std deviation per department



## VARIANCE() – Variance of a Column

SELECT VARIANCE(salary) FROM employees; -- Variance of salaries



## GROUP BY with Aggregate Functions

SELECT department\_id, COUNT(\*), AVG(salary), MAX(salary), MIN(salary) FROM employees

GROUP BY department\_id; -- Aggregate calculations per department

