

# **SQL LAB-6**

## **Lab3 Operator**

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## QUESTIONS

Lab 3.

Task: Imagine you are an HR analyst responsible for conducting a comprehensive analysis of average salaries across different departments within a company. The goal is to understand and compare the average salaries of employees in various departments. Write a query to Calculate the average salary of employee in each department from the "employee" table.

Hint: Use AVG() function and GROUP BY clause to create the query.

### ChatGPT Exercise

Using ChatGPT generates SQL queries of the below problem .

Scenario 1: Determine the average age of employees in each department from the "employees" table.

We have an "Employee" table with the following columns: employee\_id, employee\_name, department, and salary and you want to find the average salary for each department. Generate the chatGPT prompt for the above scenario.

**Task: Imagine you are an HR analyst responsible for conducting a comprehensive analysis of average salaries across different departments within a company. The goal is to understand and compare the average salaries of employees in various departments. Write a query to Calculate the average salary of employee in each department from the "employee" table.**

**Hint: Use AVG() function and GROUP BY clause to create the query.**

Code & Output:-

```
-- -- Calculate the average salary of employees in each department
```

```
mysql> -- Calculate the average salary of employees in each department
mysql> Select department, AVG(salary) AS average_salary from Employee GROUP BY department;
```

department	average_salary
IT	60666.6667
Marketing	55000.0000
HR	45000.0000

```
3 rows in set (0.01 sec)
```

### ChatGPT Exercise

Using ChatGPT generates SQL queries of the below problem .

- **Scenario 1: Determine the average age of employees in each department from the "employees" table.**
- **We have an "Employee" table with the following columns: employee\_id, employee\_name, department, and salary and you want to find the average salary for each department.**

#### 1. Query to determine the average age of employees in each department:

```
mysql> -- Calculate the average age of employees in each department
mysql> SELECT department, AVG(age) AS average_age FROM Employee GROUP BY department;
```

department	average_age
IT	32.3333
Marketing	28.0000
HR	40.0000

```
3 rows in set (0.00 sec)
```

#### 2. Query to find the average salary for each department:

```
mysql> -- Calculate the average salary of employees in each department
mysql> SELECT department, AVG(salary) AS average_salary FROM Employee GROUP BY department;
```

department	average_salary
IT	60666.6667
Marketing	55000.0000
HR	45000.0000

```
3 rows in set (0.00 sec)
```

**Generate the chatGPT prompt for the above scenario:-**

Prompt:

I need SQL queries to analyze employee data from a table called "Employee". The table has the following columns: employee\_id, employee\_name, department, age, and salary. Write an SQL query to determine the average age of employees in each department.

Write another SQL query to find the average salary for each department.

Make sure to include comments in the SQL code to explain each step in the above queries.

**Explanation:**

1) Query to Determine Average Age:

USE Ecommerce: Sets the context to the Ecommerce database.

SELECT department, AVG(age) AS average\_age: Selects the department and calculates the average age of employees in each department.

FROM Employee: Specifies the source table as Employee.

GROUP BY department: Groups the results by department to calculate the average age for each group.

2) Query to Find Average Salary:

USE Ecommerce: Sets the context to the Ecommerce database.

SELECT department, AVG(salary) AS average\_salary: Selects the department and calculates the average salary of employees in each department.

FROM Employee: Specifies the source table as Employee.

GROUP BY department: Groups the results by department to calculate the average salary for each group.