

# ***SQL MODULE***

## ***LAB – 6***

***BY***

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# Questions

Lab 1:

Database Schema

Already we have created an Employee table in day 2 lab, let's utilize this.

Task: Add two more columns in the Employee table named Salary and department and

add data into it. Now Imagine you work for a company with various departments, and

there is a need to analyze employee salaries within the IT department. Write a query to

retrieve all employees from the "employee" table who have a salary greater than 50000

and are in the 'IT' department

Hint: Use AND operator to retrieve details.

Submission:

Create an SQL script file containing your solutions for the task. Name the file

"lab\_assignment1.sql" Provide comments above the query to indicate the query's

purpose.

## Lab 2:

### Database Schema

Use our database Ecommerce to complete the task.

Task: Imagine you are managing an e-commerce platform, and the holiday season is

approaching. To capitalize on the festive spirit and boost sales, you decide to organize a

special seasonal sale featuring electronics. The goal is to offer discounts on electronics

and include products with a price less than rs. 70,000 in the promotion. Write a query to

find products from the "product" table that are either in the 'Electronics' category or

have a price less than 70000.

Hint: Use Or operator to retrieve product details.

### Submission:

Create an SQL script file containing your solutions for the task. Name the file

"lab\_assignment2.sql" Provide comments above the query to indicate the query's

purpose.

## 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.

Submission:

Create an SQL script file containing your solutions for the task. Name the file

"lab\_assignment3.sql" Provide comments above the query to indicate the query's purpose.

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.

## Lab 1:

### Database Schema

Already we have created an Employee table in day 2 lab, let's utilize this.

Task: Add two more columns in the Employee table named Salary and department and

add data into it. Now Imagine you work for a company with various departments, and

there is a need to analyze employee salaries within the IT department. Write a query to

retrieve all employees from the "employee" table who have a salary greater than 50000

and are in the 'IT' department

Hint: Use AND operator to retrieve details.

Submission:

Already we are having salary and department columns in the employee table.

```
mysql> desc employee;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| employee_id    | int           | NO   | PRI | NULL    |       |
| first_name     | varchar(50)   | NO   |     | NULL    |       |
| last_name      | varchar(50)   | NO   |     | NULL    |       |
| department     | varchar(50)   | NO   |     | NULL    |       |
| salary         | decimal(10,2) | NO   |     | NULL    |       |
| hire_date      | date          | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.01 sec)
```

```
mysql> select * from employee
-> where salary>50000 and department='it';
```

employee_id	first_name	last_name	department	salary	hire_date
5	Harsha	madireddy	it	60000.00	2024-03-01

```
1 row in set (0.00 sec)
```

## Lab 2:

### Database Schema

Use our database Ecommerce to complete the task.

Task: Imagine you are managing an e-commerce platform, and the holiday season is

approaching. To capitalize on the festive spirit and boost sales, you decide to organize a

special seasonal sale featuring electronics. The goal is to offer discounts on electronics

and include products with a price less than rs. 70,000 in the promotion. Write a query to

find products from the "product" table that are either in the 'Electronics' category or

have a price less than 70000.

Hint: Use Or operator to retrieve product details.

purpose.

```
mysql> select * from product
-> where product_type='electronics' or product_price<70000;
```

SaleID	ProductID	DiscountPercentage	StartDate	EndDate	product_type	product_price
1	1	10.00	2024-05-20	2024-05-30	electronics	80000
2	2	6.00	2024-05-20	2024-05-30	home decor	2000
3	3	8.00	2024-05-20	2024-05-30	electronics	50000
4	4	10.00	2024-05-20	2024-05-30	beauty	10000
5	5	15.00	2024-05-20	2024-05-30	electronics	90000

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

### 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.

```
mysql> SELECT Department, AVG(Salary) AS AverageSalary
-> FROM Employee
-> GROUP BY Department;
```

Department	AverageSalary
sales	52500.000000
engineer	75000.000000
IT	55000.000000

```
3 rows in set (0.00 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. Generate the chatGPT prompt for the above scenario.

```
mysql> SELECT department, AVG(salary) AS AverageSalary
-> FROM Employees
-> GROUP BY department;
```

department	AverageSalary
Engineering	65000.000000
Marketing	73500.000000
Sales	49000.000000
HR	81000.000000
Finance	65000.000000

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