

## Task 4: SQL for Data Analysis

- **Objective:** Use SQL queries to extract and analyze data from a database.
- **Tools:** MySQL or PostgreSQL or SQLite
- **Deliverables:** SQL queries in a SQL file + screenshots of output
- **Hints/Mini Guide:**
  - a. Use **SELECT**, **WHERE**, **ORDER BY**, **GROUP BY**
  - b. Use **JOINS** (**INNER**, **LEFT**, **RIGHT**)
  - c. Write subqueries
  - d. Use aggregate functions (**SUM**, **AVG**)
  - e. Create views for analysis
  - f. Optimize queries with indexes
- **Dataset:** Ecommerce\_SQL\_Database( or any data set of your choice)
- **Outcome:** Learn to manipulate and query structured data using SQL.

## Interview Questions:

1. What is the difference between **WHERE** and **HAVING**?
2. What are the different types of joins?
3. How do you calculate average revenue per user in SQL?
4. What are subqueries?
5. How do you optimize a SQL query?
6. What is a view in SQL?
7. How would you handle null values in SQL?

## 📌 Task Submission Guidelines

- 🕒 **Time Window:**

You can complete the task anytime between 10:00 AM to 10:00 PM on the given day. Submission link closes at 10:00 PM

- 🔍 **Self-Research Allowed:**

You are free to explore, Google, or refer to tutorials to understand concepts and complete the task effectively.

- 🔧 **Debug Yourself:**

Try to resolve all errors by yourself. This helps you learn problem-solving and ensures you don't face the same issues in future tasks.

- 💰 **No Paid Tools:**

If the task involves any paid software/tools, do not purchase anything. Just learn the process or find free alternatives.

- 📁 **GitHub Submission:**

Create a new GitHub repository for each task.

Add everything you used for the task — code, datasets, screenshots (if any), and a **short README.md** explaining what you did.

- 📌 **Submit Here:**

After completing the task, paste your GitHub repo link and submit it using the link below:

# SUBMISSION LINK

Best  
of  
Luck

