


Task 3: Retail Orders Database – Querying Fundamentals

 **Objective:** Learn and apply basic SQL operations such as SELECT, WHERE, ORDER BY, GROUP BY, and JOIN on a mock retail dataset to extract meaningful insights.

Tools Required: MySQL / SQLite / PostgreSQL (any preferred SQL tool)

Hints / Mini Guide:

- Use SELECT column_name FROM table; for simple queries.
- Use WHERE condition to filter rows.
- Use ORDER BY column_name DESC for sorting.
- Use GROUP BY and aggregate functions like SUM(), COUNT().
- Use INNER JOIN table2 ON table1.column = table2.column for combining data.
- Practice using LIMIT, AS, and date functions like MONTH() or DATEDIFF() (depending on SQL engine).

Dataset names from Kaggle suitable for this Task:

Use a retail dataset like "[Walmart Sales](#)" or "[Superstore Dataset](#)"


By completing this task, you will:


- Understand SQL syntax and structure
- Know how to query and manipulate real-world datasets
- Be confident in basic analytics using SQL
- Be job-ready for SQL-related interview questions
- Build a mini-project that they can include on GitHub or in a portfolio


Interview Questions Related To Above Task:

- What is the difference between WHERE and HAVING in SQL?
- How does GROUP BY work? Can we use it without aggregate functions?
- Explain different types of JOINS. When would you use a LEFT JOIN?
- What is normalization? Why is it important in databases?
- Write a query to find the second-highest salary from an employee table.


Task Submission Guidelines


 **Time Window:** You can complete the task anytime between 10:00 AM of Assigned task to 10:00 AM of next day. Submission link closes at 10:00 AM of next day

 **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]

