✅ Task 4: SQL Intermediate – Joins (INNER, LEFT) + Business Questions

Tools:

- Primary: PostgreSQL / MySQL
- Alternative: SQLite + DB Browser

Dataset:

- Chinook Database (highly recommended)
- Northwind dataset
- E-commerce dataset with Orders + Customers tables

Hints / Mini Guide:

1. Load dataset tables into SQL (customers, orders, products, categories) ensuring primary keys and foreign keys are properly mapped.
2. Write an INNER JOIN query to combine orders with customer details and validate output by checking if order counts match.
3. Write a LEFT JOIN query to find customers who never placed any orders, since these users are often important for business marketing.
4. Perform join between orders and products to calculate total revenue per product and identify high-performing SKUs.
5. Join categories with products to generate category-wise revenue distribution used in product strategy decisions.
6. Add conditions on joined tables using WHERE to answer business questions like "sales in region X between dates Y and Z".
7. Use aliases clearly (c, o, p) so queries are readable, professional, and scalable.
8. Export final joined outputs into CSV and provide 3 business insights (example: "Top 3 products contribute 45% of sales").
9. Store all final working queries in a SQL file with comments.

Deliverables:

- joins_queries.sql
- joined_output.csv
- insights.txt (3 insights)

Final Outcome:

✅ Intern learns how to combine multiple tables using joins

Interview Questions Related To Above Task:

- Difference between INNER JOIN and LEFT JOIN?
- When would you use LEFT JOIN in business?
- How do foreign keys help in data analysis?
- What happens when join keys have duplicates?
- Write SQL to find customers with no orders.

📌 **Task Submission Guidelines**

- ⏰ **Time Window:**

Youcan 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:**

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

- 🛠️ **Debug Yourself:**

Tryto 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:**

Ifthe 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]