🗒️SQL SELECT Queries on the Northwind Database

🧠 Assignment Overview

This assignment provides practical exposure to SQL using the **Northwind database**, a well-known dataset simulating the operations of a trading company. You'll write SELECT queries to extract insights from tables such as Customers, Orders, Products, Employees, and more.

You will work through **15 progressively complex SQL problems**, each aligned to real-world business scenarios and organized by difficulty.

🎯 Learning Objectives

- Extract and manipulate data using SELECT queries
- Apply filtering using WHERE, LIKE, logical operators, and date functions
- Use aggregations (COUNT, SUM, AVG) with GROUP BY and HAVING
- Join multiple tables using INNER JOIN
- Write subqueries for advanced filtering and ranking

🗃️ Assignment Questions

Question Number	Objective	Question	Complexity
1	Retrieve data using basic SELECT statements	List the names of all customers in the database.	Easy (2 Marks)
2	Apply filtering using the WHERE clause	Retrieve the names and prices of all products that cost less than $15.	Easy (2 Marks)

3	Use SELECT to extract multiple fields	Display all employees' first and last names.	Easy (2 Marks)
4	Filter data using a function on date values	List all orders placed in the year 1997.	Easy (2 Marks)
5	Apply numeric filters	List all products that have a price greater than $50..	Easy (2 Marks)
6	Perform multi-table JOIN operations	Show the names of customers and the names of the employees who handled their orders.	Medium (3 Marks)
7	Use GROUP BY for aggregation	List each country along with the number of customers from that country.	Medium (3 Marks)
8	Group data by a foreign key relationship and apply aggregation	Find the average price of products grouped by category.	Medium (3 Marks)
9	Use aggregation to count records per group	Show the number of orders handled by each employee.	Medium (3 Marks)

10	Filter results using values from a joined table	List the names of products supplied by "Exotic Liquids".	Medium (3 Marks)
11	Rank records using aggregation and sort	List the top 3 most ordered products (by quantity).	Hard (5 Marks)
12	Use GROUP BY and HAVING to filter on aggregates	Find customers who have placed orders worth more than $10,000 in total.	Hard (5 Marks)
13	Aggregate and filter at the order level	Display order IDs and total order value for orders that exceed $2,000 in value.	Hard (5 Marks)
14	Use subqueries in HAVING clause	Find the name(s) of the customer(s) who placed the largest single order (by value).	Hard (5 Marks)
15	Identify records using NOT IN with subquery	Get a list of products that have never been ordered.	Hard (5 Marks)

Artifacts to be generated (For Learners):

- SQL Script File(.sql)
- Artifacts generated need to be submitted in vLearn on or before the deadline.
- SQL Script File Name:
    - File name: firstname_lastname_CPDA_Batch.sql
    - E.g., Kartik_Mudaliar_CPDA_B1.sql
- Zip your script file and submit