SQL Coding – Attempt 2

Date: 9th Oct

Duration: 1.5 hrs

Total marks: 50

Section-A 7*2=14M

1. Write a query find that total number of items that were sold on 2024-02-29

   Table to use: Transactions

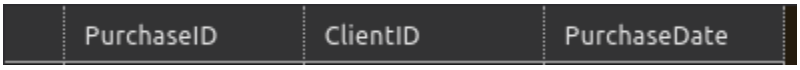
   Sample Output:

2. Write a query to find all purchases made by clients whose ClientName starts with 'E'.

   Table to use: Clients, Purchases

   Sample Output:

3. Using the Transactions table, find items that have sold more than 25 units in total

   Table to use: Transactions

   Sample Output:

4. Write a query to find all orders that were placed either on the first day or the last day of any month using the Orders table.

   Table to use: Orders

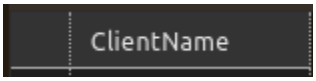
   Sample Output:

5. Write a query to find all clients who have made at least one purchase

   Table to use: Client, Purchases

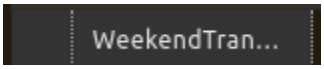
   Sample Output:



6. Write a query to count how many transactions happened on Saturday, Sunday and Monday in the Transactions table.

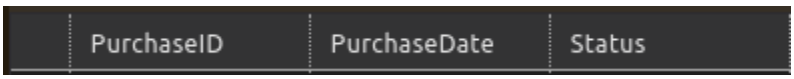
   Table to use: Transactions

   Sample Output:



7. Write a query to display PurchaseID, PurchaseDate, and a flag 'Late' if the purchase date is after '2024-02-25', otherwise 'On Time'.

   Sample Output: (Table to use: Purchases)



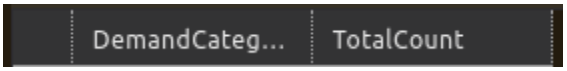
Section – B 5*5=25M

8. Write a query to calculate the total quantity sold for each ProductCategory, and rank the categories based on total Quantity. Additionally, display the overall average quantity sold and include only those categories whose total Quantity exceed this average.

   Sample Output: (Table to use: SalesRecord, ProductDetails)

9. Using the SalesRecord and ProductDetails tables, write a query to list all products sold in June to August. Categorize the Quantity as 'High Demand' (if the total Quantity are above the average sales of all products) or 'Low Demand' (if below the average). Display how many are High demand and low demand

   Sample Output: (Table to use: SalesRecord, ProductDetails)



10. Using the OrdersLog table, write a query that calculates total quantity ordered by each client from Jan to June. Also, include a column showing the average quantity

ordered by all clients (in the same time period), and only show the clients with the highest quantity (top 3).

Sample Output: (Table to use: OrdersLog)

	ClientID	TotalQuantity	Rank	AvgTotalQuan...

11. Using the OrdersLog, DeliveryLog, and Customers tables, write a query to list customers who placed orders with a total quantity greater than the average total quantity of all customers, and who had deliveries after March 10, 2024.
    Table to use: OrdersLog, DeliveryLog, Customers
    Sample Output:

	CustomerName	Email	PhoneNumber	OrderDate	DeliveryDate	Quantity

    (Note: Customer ID is equal to ClietID)

12. Using the OrganizationStructure table, write a query to calculate the average tenure (in years) of employees that are mapped under each manager. Rank the managers based on their team's average tenure and categorize them into ‘Junior' (rank <= 2), 'Senior I' (rank between 3 and 4), and ‘Senior II’ (rank > 4). Include only those managers whose teams have an average tenure greater than 3 years.
    Table to use: OrganizationStructure
    Sample Output:

	ManagerName	AvgTenure	TenureRank	PerformanceC...

Section – C 1*6=6M

13. Write a query to find
    1. the number of orders that were delivered in the same month
    2. the Order IDs with the least and most number of days to delivery

        Days to delivery = Order date - Delivery Date

    Note: ItemID and PurchaseID are the same

    Table to use: OrdersLog, DeliveryLog
    Sample output:
    1. Item ID, Client ID, Quantity, Order date, Delivery Date, Days to delivery
    2. Orders delivered in same month
    3. Order ID with least days to delivery
    4. Order ID with most days to delivery