LAB # 07

Open Ended

SQL Commands for Client and Product Master Management

Objective: To practice and implement advanced SQL operations including database creation, table creation, data insertion, data retrieval using queries, updating records, altering table structure, and creating table backups.

Task1: Show all product names and their selling prices.

```
SELECT Description, Sell_price FROM product_master;
```

100 %

Results Messages

	Description	Sell_price
1	Chocolate Cake	500
2	Vanilla Donut	200
3	Strawberry Tart	750
4	Red Velvet Cake	600
5	Blueberry Muffin	550
6	Chocolate Donut	180
7	Brownie Box	700
8	Coffee Cake	520
9	Lemon Tart	160
10	Fruit Cake	900
11	Marble Cake	470
12	Cupcakes Box	680
13	Cheese Cake	780
14	Plain Donut	140
15	Swiss Roll	600
16	Butter Cookies	300
17	Peanut Butter ...	550
18	Dark Chocolate...	750
19	Tiramisu	880
20	Carrot Cake	400
21	Honey Muffin	210
22	Almond Tart	720
23	Mango Cake	560

Task 2: Display all client names along with their cities.

```
SELECT Name, City FROM client_master;
```

100 %

Results Messages

	Name	City
1	Ali Khan	Karachi
2	Sara Zafar	Lahore
3	John Ali	Islamabad
4	Fariha Iqbal	Peshawar
5	Ahmed Raza	Quetta
6	Samina Tariq	Faisalabad
7	Zara Aslam	Rawalpindi
8	Hassan Jamil	Multan
9	Urooj Fatima	Karachi
10	Rizwan Khan	Hyderabad
11	Aliya Shah	Karachi
12	Yasir Mehmood	Karachi
13	Neha Bukhari	Lahore
14	Talha Nadeem	Sialkot
15	Hira Sajjad	Lahore
16	Tariq Aziz	Islamabad
17	Anum Wahid	Rawalpindi
18	Shoaib Hassan	Gujranwala
19	Areeba Khalid	Bahawalpur
20	Bilal Ahmed	Lahore
21	Sana Tariq	Karachi
22	Faizan Riaz	Karachi
23	Maliha Khan	Karachi
24	Imran Qureshi	Lahore

Task 3: List all products with quantity less than 30.

```
SELECT * FROM product_master WHERE Qty_on_hand < 30;
```

100 %

Results Messages

	Product_no	Description	Profit_percent	Unit_measure	Qty_on_hand	Reorder_level	Sell_price	Cost_price
1	P003	Strawberry Tart	10	Box	25	5	750	650
2	P009	Lemon Tart	9.5	Piece	20	5	160	120
3	P013	Cheese Cake	23.5	Piece	28	8	780	650
4	P017	Peanut Butter Cake	21	Piece	25	5	550	440
5	P019	Tiramisu	30	Piece	22	5	880	700
6	P022	Almond Tart	17	Box	27	6	720	600
7	P025	Oreo Cheesecake	28	Piece	20	4	960	800

Task 4: Show all unique states from the clients table.

```
SELECT DISTINCT State FROM client_master;
```

100 %

Results Messages

	State
1	Balochistan
2	Capital
3	KPK
4	Punjab
5	Sindh

Task 5: Display clients whose names start with ‘S’.

```
SELECT * FROM client_master WHERE Name LIKE 'S%';
```

100 %

Results Messages

	Client_no	Name	Address1	Address2	City	State	Pincode	Bal_due
1	C002	Sara Zafar	Street 1	Block 5	Lahore	Punjab	54000	800
2	C006	Samina Tariq	Street 6	Block D	Faisalabad	Punjab	38000	0
3	C018	Shoaib Hassan	Commercial Area	Shop 11	Gujranwala	Punjab	52200	200
4	C021	Sana Tariq	Street 18	Villa 16	Karachi	Sindh	75100	1200

Task 6: Show the total number of clients in each state.

```
SELECT State, COUNT(*) AS TotalClients FROM client_master GROUP BY State;
```

100 %

Results Messages

	State	TotalClients
1	Balochistan	1
2	Capital	2
3	KPK	1
4	Punjab	13
5	Sindh	8

Task 7: Find the maximum selling price of all products.

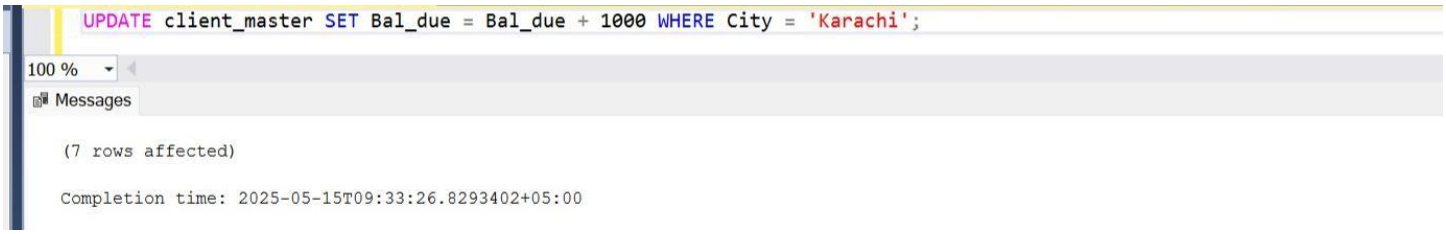
```
SELECT MAX(Sell_price) AS MaxPrice FROM product_master;
```

100 %

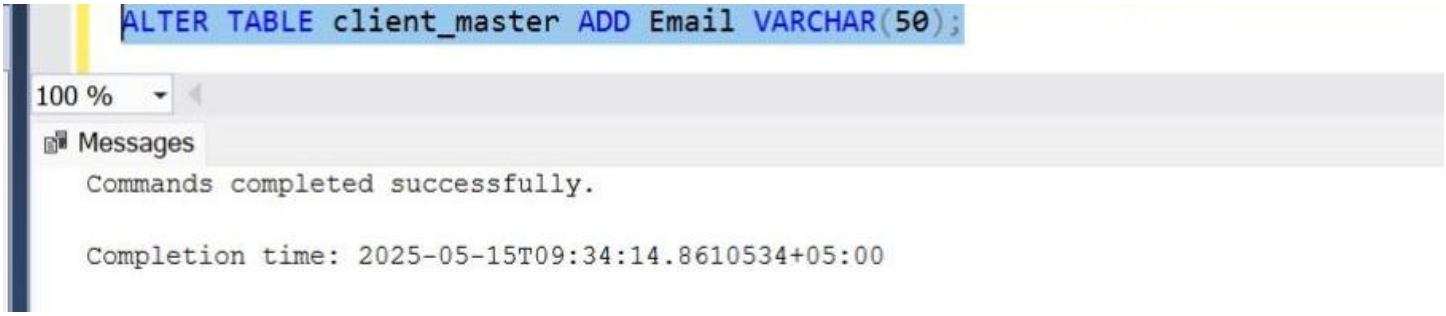
Results Messages

	MaxPrice
1	960

Task 8: Increase the balance due by 1000 for clients living in ‘Karachi’.



Task 9: Write a query to add an ‘Email’ column to the client_master table**.**



Conclusion:

In this lab, we successfully created and managed the client_master and product_master tables using key SQL commands such as SELECT, WHERE, UPDATE, and ALTER TABLE. Through practical tasks like data retrieval, table modification, and data manipulation, we gained hands-on experience with real-world retail database scenarios. This lab strengthened our understanding of SQL operations and enhanced our ability to manage and analyze structured data efficiently in a database system.