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# MID LAB

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## SECTION A:

1) Retrieve the list of all medicines that belong to the category 'Antibiotic'.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure for 'SAMI\_KHAN'. The query editor in the center contains the following SQL code:

```
use MedicalStore;  
  
SELECT medicine_name, category  
FROM Medicines  
WHERE category = 'Antibiotic';
```

The Results pane at the bottom shows the output of the query, which is a table with two columns: 'medicine\_name' and 'category'. The results are as follows:

medicine_name	category
Paradol	Antibiotic
Augmentin	Antibiotic
Amoxicillin	Antibiotic

The status bar at the bottom indicates that the query was executed successfully, returning 3 rows.

2) Display the name and price of all medicines whose price is greater than 100.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure for 'SAMI\_KHAN'. The query editor in the center contains the following SQL code:

```
SELECT medicine_name, price  
FROM Medicines  
WHERE price > 100;
```

The Results pane at the bottom shows the output of the query, which is a table with two columns: 'medicine\_name' and 'price'. The results are as follows:

medicine_name	price
Augmentin	150.00
Brufen	120.00
Amoxicillin	200.00

The status bar at the bottom indicates that the query was executed successfully, returning 3 rows.

3) List all suppliers whose company name starts with the letter 'M' using the LIKE operator.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure for 'SAMI\_KHAN'. The main query window contains the following SQL code:

```
SELECT supplier_name, company_name
FROM Suppliers
WHERE company_name LIKE 'M%';
```

The Results pane at the bottom shows the output of the query:

supplier_name	company_name
Al Traders	MediHealth
Bial Pharma	Medife
Naveed Suppliers	MaxMed

4) Show all medicines where the stock quantity is between 10 and 100.

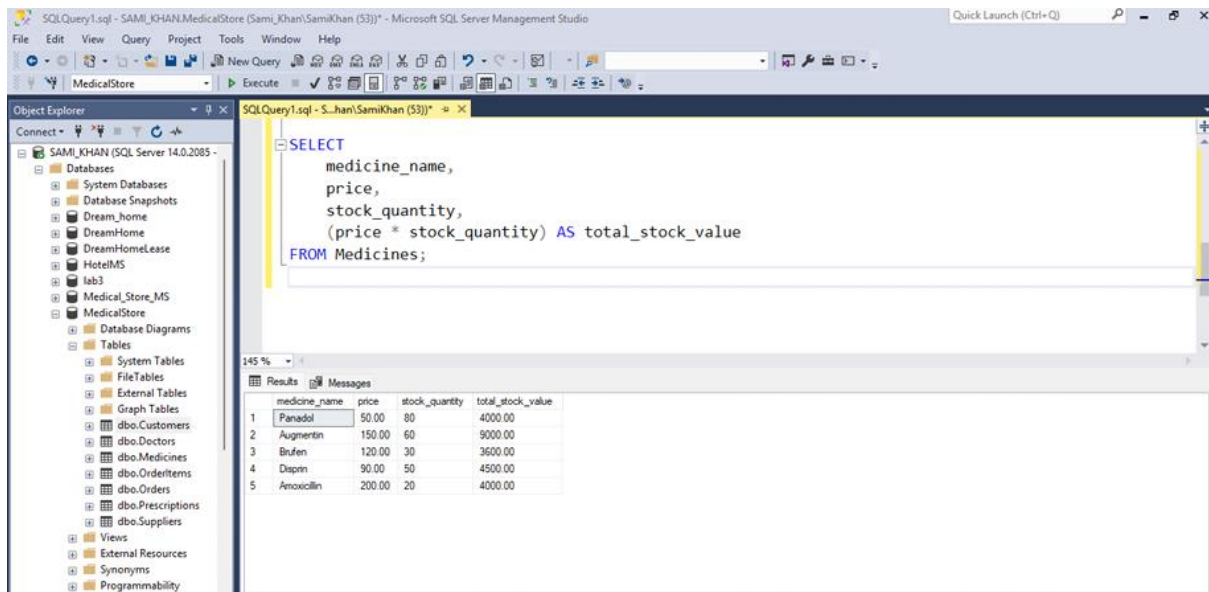
The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure for 'SAMI\_KHAN'. The main query window contains the following SQL code:

```
SELECT medicine_name, stock_quantity
FROM Medicines
WHERE stock_quantity BETWEEN 10 AND 100;
```

The Results pane at the bottom shows the output of the query:

medicine_name	stock_quantity
Panadol	80
Augmentin	60
Brufen	30
Diaprin	50
Amoxicillin	20

5) Display the medicine name and its total stock value (price × stock quantity) using an arithmetic expression.



The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the 'MedicalStore' database. The central query editor contains the following SQL query:

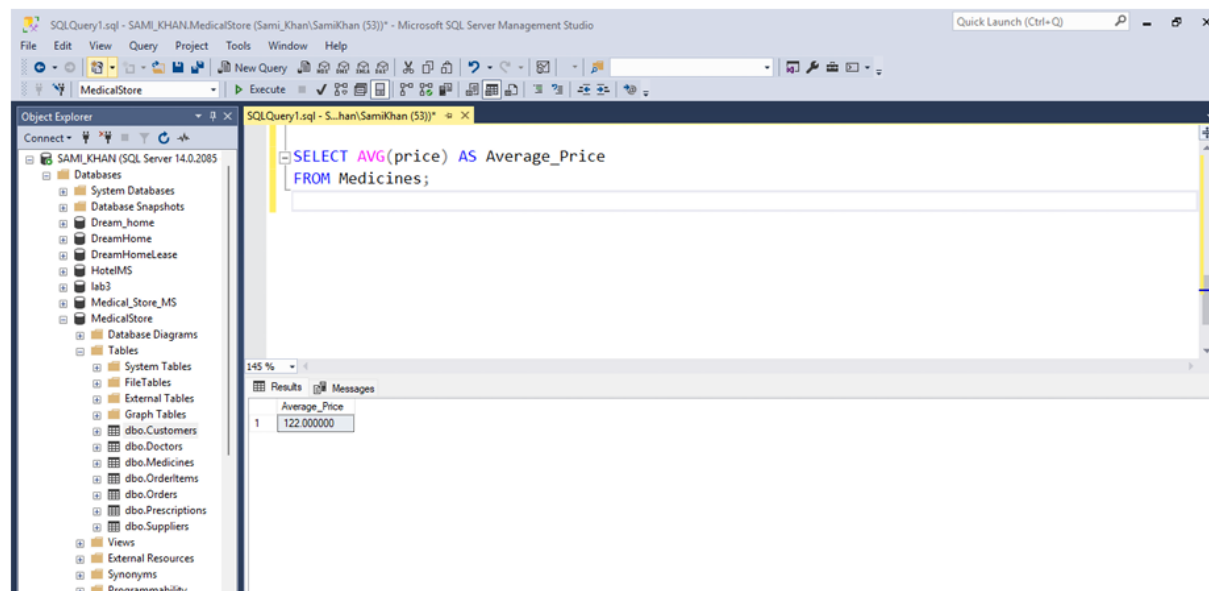
```
SELECT  
    medicine_name,  
    price,  
    stock_quantity,  
    (price * stock_quantity) AS total_stock_value  
FROM Medicines;
```

The Results pane at the bottom displays the output of the query as a table with 5 rows and 4 columns: medicine\_name, price, stock\_quantity, and total\_stock\_value.

	medicine_name	price	stock_quantity	total_stock_value
1	Panadol	50.00	80	4000.00
2	Augmentin	150.00	60	9000.00
3	Brufen	120.00	30	3600.00
4	Daprin	90.00	50	4500.00
5	Amoxicillin	200.00	20	4000.00

## Section\_B

6. Find the average price of all medicines in the database



The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the 'MedicalStore' database. The central query editor contains the following SQL query:

```
SELECT AVG(price) AS Average_Price  
FROM Medicines;
```

The Results pane at the bottom displays the output of the query as a table with 1 row and 1 column: Average\_Price.

	Average_Price
1	122.000000

7. Display the total number of orders placed by each customer.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure for 'SAMI\_KHAN (SQL Server 14.0.2085)'. The main query window contains the following SQL code:

```
SELECT c.customer_name, COUNT(o.order_id) AS Total_Orders
FROM Customers c
JOIN Orders o ON c.customer_id = o.customer_id
GROUP BY c.customer_name;
```

The Results pane at the bottom shows the output of the query:

	customer_name	Total_Orders
1	Ahmed Khan	1
2	Ali Raza	1
3	Sara Malik	1

8. Find the maximum and minimum stock quantity among all medicines.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure for 'SAMI\_KHAN (SQL Server 14.0.2085)'. The main query window contains the following SQL code:

```
SELECT
    MAX(stock_quantity) AS Maximum_Stock,
    MIN(stock_quantity) AS Minimum_Stock
FROM Medicines;
```

The Results pane at the bottom shows the output of the query:

	Maximum_Stock	Minimum_Stock
1	80	20

9. Display the supplier name and the length of the company name using a string function.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the 'MedicalStore' database structure, including tables like Suppliers, Customers, and Orders. The main query window contains the following SQL code:

```
SELECT
    supplier_name,
    company_name,
    LEN(company_name) AS CompanyName_Length
FROM Suppliers;
```

The Results pane at the bottom shows the output of the query:

	supplier_name	company_name	CompanyName_Length
1	Ali Traders	MediHealth	10
2	Bilal Phama	Medlife	8
3	Naveed Suppliers	MaxMed	6

10. Show the month name and total sales amount for each month from the Orders table.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the 'MedicalStore' database structure. The main query window contains the following SQL code:

```
SELECT
    DATENAME(MONTH, order_date) AS Month_Name,
    SUM(total_amount) AS Total_Sales
FROM Orders
GROUP BY DATENAME(MONTH, order_date);
```

The Results pane at the bottom shows the output of the query:

	Month_Name	Total_Sales
1	October	1250.00

## Section\_C

11. Display each order along with the customer's name and contact number who placed it.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure for 'SAMI\_KHAN (SQL Server 14.0.2085)', including databases, tables, and views. The main query editor contains the following SQL code:

```
SELECT
o.order_id,
c.customer_name,
c.contact_number,
o.order_date,
o.total_amount
FROM Orders o
JOIN Customers c ON o.customer_id = c.customer_id;
```

The Results pane at the bottom shows the output of the query, which includes columns for order\_id, customer\_name, contact\_number, order\_date, and total\_amount. The data is as follows:

order_id	customer_name	contact_number	order_date	total_amount
1	Ahmed Khan	03001234567	2025-10-01	500.00
2	Sara Malik	03111234567	2025-10-05	300.00
3	Ali Raza	03219876543	2025-10-10	450.00

12. List all order items with medicine name and corresponding unit prices.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure for 'SAMI\_KHAN (SQL Server 14.0.2085)'. The main query editor contains the following SQL code:

```
SELECT
oi.order_item_id,
m.medicine_name,
oi.unit_price,
oi.quantity
FROM OrderItems oi
JOIN Medicines m ON oi.medicine_id = m.medicine_id;
```

The Results pane at the bottom shows the output of the query, which includes columns for order\_item\_id, medicine\_name, unit\_price, and quantity. The data is as follows:

order_item_id	medicine_name	unit_price	quantity
1	Panadol	50.00	5
2	Brufen	120.00	2
3	Augmentin	150.00	2
4	Diaprin	90.00	3

13. Retrieve the customer name, doctor name, and medicine prescribed for every prescription.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure for 'SAMI\_KHAN (SQL Server 14.0.2085)', including databases, tables, and views. The main query window contains the following SQL code:

```
SELECT
    c.customer_name,
    d.doctor_name,
    m.medicine_name
FROM Prescriptions p
JOIN Customers c ON p.customer_id = c.customer_id
JOIN Doctors d ON p.doctor_id = d.doctor_id
JOIN Medicines m ON p.medicine_id = m.medicine_id;
```

The Results pane at the bottom shows the output of the query:

	customer_name	doctor_name	medicine_name
1	Ahmed Khan	Dr. Hamid	Panadol
2	Sara Malik	Dr. Sana	Brufen
3	Ali Raza	Dr. Asif	Augmentin

14. Show the list of orders with their payment method and payment status.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure for 'SAMI\_KHAN (SQL Server 14.0.2085)'. The main query window contains the following SQL code:

```
SELECT
    order_id,
    payment_method,
    payment_status
FROM Orders;
```

The Results pane at the bottom shows the output of the query:

	order_id	payment_method	payment_status
1	1	Cash	Paid
2	2	Card	Pending
3	3	Cash	Paid

15. Display all customers who have placed at least one order, including the total number of medicines ordered.



The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure for 'SAMI\_KHAN'. The main query window contains the following SQL code:

```
SELECT
    c.customer_name,
    COUNT(oi.medicine_id) AS Total_Medicines_Ordered
FROM Customers c
JOIN Orders o ON c.customer_id = o.customer_id
JOIN OrderItems oi ON o.order_id = oi.order_id
GROUP BY c.customer_name;
```

The Results pane at the bottom shows the output of the query:

customer_name	Total_Medicines_Ordered
Ahmed Khan	2
Ali Raza	1
Sara Malik	1

## Section\_E

16. Retrieve the medicines with prices not equal to 50 using the appropriate operator.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure for 'SAMI\_KHAN'. The main query window contains the following SQL code:

```
SELECT medicine_name, price
FROM Medicines
WHERE price <> 50;
```

The Results pane at the bottom shows the output of the query:

medicine_name	price
Augmentin	150.00
Brufen	120.00
Disprin	90.00
Amoxicillin	200.00
Paracetamol	40.00
Penicillin	70.00
Zentel	120.00
Cough-X	80.00
Paracetamol	40.00
Penicillin	70.00
Zentel	120.00

17. Display all orders whose status is either 'PENDING' or 'PAID'.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure for 'SAMI\_KHAN (SQL Server 14.0.2085)', including databases, tables, and views. The main query window contains the following SQL code:

```
SELECT order_id, customer_id, payment_status, total_amount
FROM Orders
WHERE payment_status IN ('PENDING', 'PAID');
```

The Results pane at the bottom shows the output of the query:

order_id	customer_id	payment_status	total_amount
1	1	Paid	500.00
2	2	Pending	300.00
3	3	Paid	450.00

18. Show all orders that were placed in the month of October 2025.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure for 'SAMI\_KHAN (SQL Server 14.0.2085)'. The main query window contains the following SQL code:

```
SELECT order_id, customer_id, order_date, total_amount
FROM Orders
WHERE YEAR(order_date) = 2025 AND MONTH(order_date) = 10;
```

The Results pane at the bottom shows the output of the query:

order_id	customer_id	order_date	total_amount
1	1	2025-10-01	500.00
2	2	2025-10-05	300.00
3	3	2025-10-10	450.00

19. Retrieve the customer names and their total amount spent where total spending is greater than 500.

SQLQuery1.sql - SAMI\_KHAN.MedicalStore (Sami\_Khan\SamiKhan (53)) - Microsoft SQL Server Management Studio

Object Explorer

- SAMI\_KHAN (SQL Server 14.0.2085)
  - Databases
    - System Databases
    - Database Snapshots
    - Dream\_home
    - DreamHome
    - DreamHomeLease
    - HotelMS
    - lab3
    - Medical\_Store\_MS
    - MedicalStore
      - Database Diagrams
      - Tables
        - System Tables
        - FileTables
        - External Tables
        - Graph Tables
        - dbo.Customers
        - dbo.Doctors
        - dbo.Medicines
        - dbo.OrderItems
        - dbo.Orders
        - dbo.Prescriptions
        - dbo.Suppliers
      - Views
      - External Resources
      - Synonyms
      - Programmability

SQLQuery1.sql - S...han\SamiKhan (53) \*

```
SELECT
    c.customer_name,
    SUM(o.total_amount) AS Total_Spent
FROM Customers c
JOIN Orders o ON c.customer_id = o.customer_id
GROUP BY c.customer_name
HAVING SUM(o.total_amount) > 100;
```

Results

	customer_name	Total_Spent
1	Ahmed Khan	500.00
2	Ali Raza	450.00
3	Sara Malik	300.00

20. List all customers whose email address contains 'gmail.com'.

LAB-MID.sql - SAMI\_KHAN.MedicalStore (Sami\_Khan\SamiKhan (53)) - Microsoft SQL Server Management Studio

Object Explorer

- SAMI\_KHAN (SQL Server 14.0.2085)
  - Databases
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        - dbo.Customers
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        - dbo.Medicines
        - dbo.OrderItems
        - dbo.Orders
        - dbo.Prescriptions
        - dbo.Suppliers
      - Views
      - External Resources
      - Synonyms
      - Programmability

LAB-MID.sql - SAM...an\SamiKhan (53) \*

```
SELECT customer_name, email
FROM Customers
WHERE email LIKE '%gmail.com%';
```

Results

	customer_name	email
1	Sara Malik	sara43@gmail.com
2	Sami Khan	sami@gmail.com
3	Fazal Hussain	fazal@gmail.com