

# Lab 4 Report



Session: 2022 – 2026

**Submitted by:**

Name: Robass Atif

Registration No: 2022-CS-150

**Submitted to:**

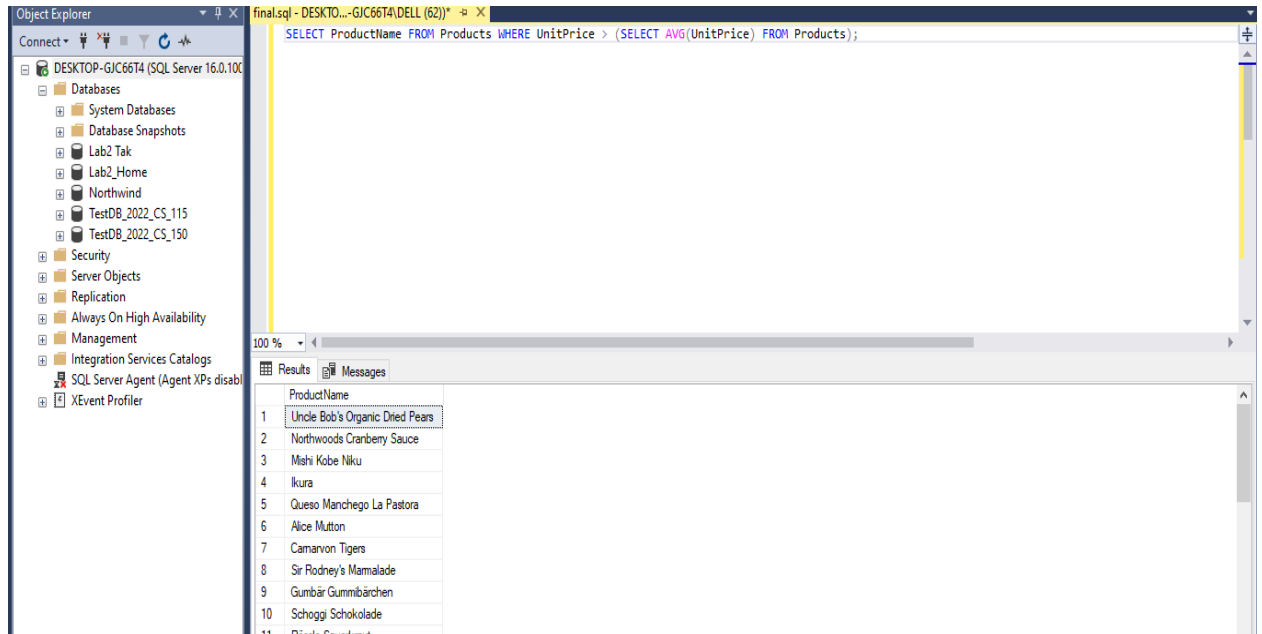
Mr. Nazeef-ul-Haq

Department of Computer Science  
University of Engineering and Technology  
Lahore, Pakistan

## Home Task

**Q1:**List name of all the products whose price is above average. (Product Name)

```
SELECT ProductName FROM Products WHERE UnitPrice > (SELECT AVG(UnitPrice)
FROM Products);
```



**Q2:**Write a query to generate report showing date wise orders shipped. (ShippedDate, numberOforders)

```
select ShippedDate,COUNT(*) as NumberOfOrders from Orders where ShippedDate is
not null group by ShippedDate;
```

The screenshot shows the SQL Server Enterprise Manager interface. On the left, the Object Explorer displays the server structure for 'DESKTOP-GJC66T4 (SQL Server 16.0.100...)'.

The central query editor contains the following SQL query:

```
select ShippedDate, COUNT(*) as NumberOfOrders from Orders where ShippedDate is not null group by ShippedDate;
```

The Results pane at the bottom displays the output of the query as a table with two columns: 'ShippedDate' and 'NumberOfOrders'.

	ShippedDate	NumberOfOrders
1	1996-07-10 00:00:00.000	1
2	1996-07-11 00:00:00.000	1
3	1996-07-12 00:00:00.000	1
4	1996-07-15 00:00:00.000	2
5	1996-07-16 00:00:00.000	2
6	1996-07-17 00:00:00.000	1
7	1996-07-22 00:00:00.000	1
8	1996-07-23 00:00:00.000	1
9	1996-07-25 00:00:00.000	2
10	1996-07-29 00:00:00.000	1
11	1996-07-30 00:00:00.000	1

**Q3: List name of all countries from where two or more suppliers belong to. (Country)**

select Country from Suppliers group by Country having count(\*) >= 2;

The screenshot shows the SQL Server Enterprise Manager interface. On the left, the Object Explorer displays the server structure for 'DESKTOP-GJC66T4 (SQL Server 16.0.100...)'.

The central query editor contains the following SQL query:

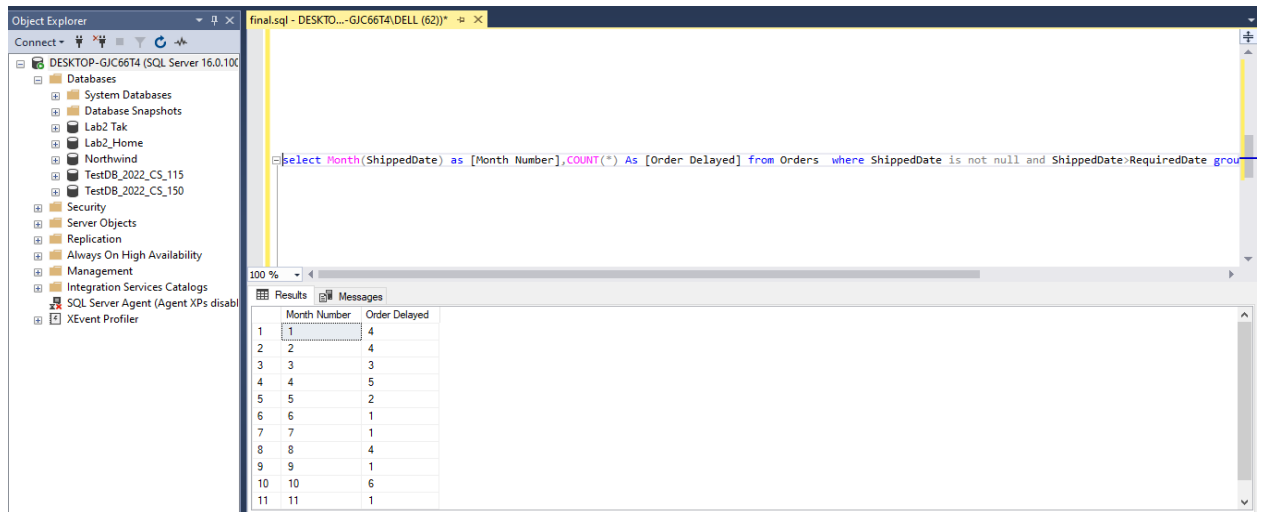
```
select Country from Suppliers group by Country having count(*) >= 2;
```

The Results pane at the bottom displays the output of the query as a table with one column: 'Country'.

	Country
1	Australia
2	Canada
3	France
4	Germany
5	Italy
6	Japan
7	Sweden
8	UK
9	USA

**Q4:Write a query to generate report showing month wise orders delayed shipped. Your output should look like this (Month Number, Orders Delayed)**

```
select Month(ShippedDate) as [Month Number],COUNT(*) As [Order Delayed] from
Orders where ShippedDate is not null and ShippedDate>RequiredDate group by MONTH(ShippedDate)
;
```



The screenshot shows the SQL Server Enterprise Manager interface. The Object Explorer on the left displays the server structure. The central query window contains the following SQL query:

```
select Month(ShippedDate) as [Month Number],COUNT(*) As [Order Delayed] from Orders where ShippedDate is not null and ShippedDate>RequiredDate group by MONTH(ShippedDate)
```

The Results pane at the bottom displays the output of the query as a table with two columns: Month Number and Order Delayed.

Month Number	Order Delayed
1	4
2	4
3	3
4	5
5	2
6	1
7	1
8	4
9	1
10	6
11	1

**Q5:Report all the orders which have been discounted. Your result should show the total discount against each order. Output should look like this (Order ID, Discount)**

```
SELECT OrderID, SUM(Discount) AS TotalDiscount FROM [Order Details] GROUP
BY OrderID HAVING SUM(Discount) > 0;
```

The screenshot shows the SQL Server Enterprise Manager interface. On the left, the Object Explorer displays the server structure for 'DESKTOP-GJC66T4 (SQL Server 16.0.100)'. The central query window, titled 'final.sql - DESKTO...-GJC66T4,DELL (62))', contains the following SQL query:

```
SELECT OrderID, SUM(Discount) AS TotalDiscount FROM [Order Details] GROUP BY OrderID HAVING SUM(Discount) > 0;
```

Below the query window, the Results pane shows the output of the query as a table with two columns: OrderID and TotalDiscount. The table contains 10 rows of data.

OrderID	TotalDiscount
10250	0.300000011920929
10251	0.100000001490116
10252	0.100000001490116
10254	0.300000011920929
10260	0.75
10262	0.200000002980232
10263	0.75
10264	0.150000005960464
10266	0.0500000007450581
10267	0.300000011920929

**Q6:Write a query to list the number of orders which were shipped in the cities of USA in 1997. Show the number of order against each city. (Ship City, Number of orders)**

SELECT ShipCity, COUNT(\*) AS NumberOfOrders FROM [Orders] WHERE ShipCountry = 'USA' AND YEAR(ShippedDate) = 1997 GROUP BY ShipCity;

The screenshot shows the SQL Server Enterprise Manager interface. On the left, the Object Explorer displays the server structure for 'DESKTOP-GJC66T4 (SQL Server 16.0.100)'. The central query window, titled 'final.sql - DESKTO...-GJC66T4,DELL (62))', contains the following SQL query:

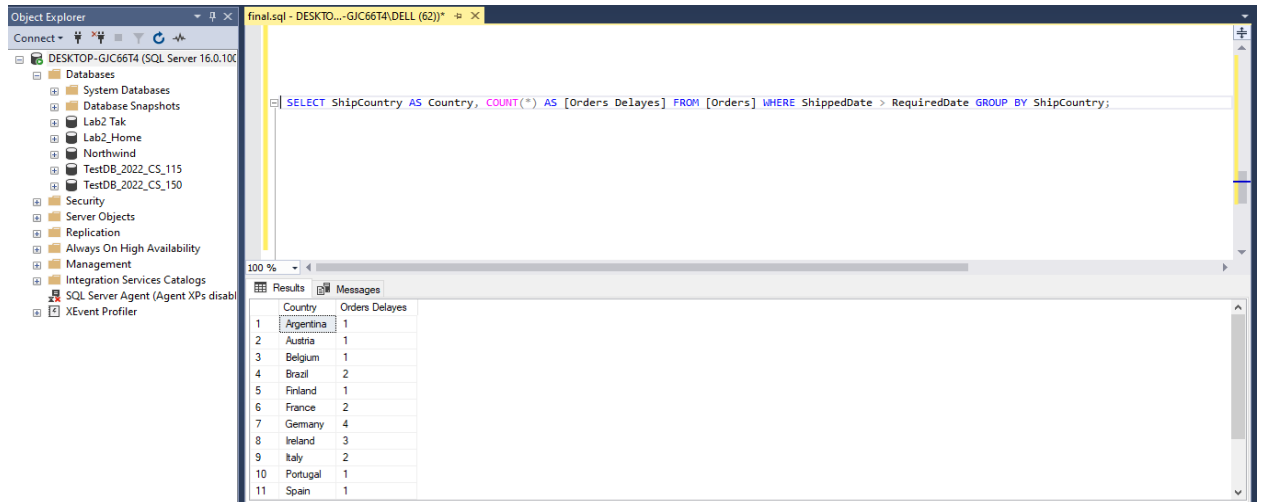
```
SELECT ShipCity, COUNT(*) AS NumberOfOrders FROM [Orders] WHERE ShipCountry = 'USA' AND YEAR(ShippedDate) = 1997 GROUP BY ShipCity;
```

Below the query window, the Results pane shows the output of the query as a table with two columns: OrderID and TotalDiscount. The table contains 10 rows of data.

OrderID	TotalDiscount
10250	0.300000011920929
10251	0.100000001490116
10252	0.100000001490116
10254	0.300000011920929
10260	0.75
10262	0.200000002980232
10263	0.75
10264	0.150000005960464
10266	0.0500000007450581
10267	0.300000011920929

**Q7:Write a query to generate report showing country wise orders delayed shipped. Your output should look like this: (Country, Orders Delayses)**

```
SELECT ShipCountry AS Country, COUNT(*) AS [Orders Delayses] FROM [Orders]
WHERE ShippedDate > RequiredDate GROUP BY ShipCountry;
```



The screenshot shows the SQL Server Enterprise Manager interface. On the left, the Object Explorer displays the server structure for 'DESKTOP-GJC66T4 (SQL Server 16.0.100.100)'. The central pane shows a query window with the following SQL query:

```
SELECT ShipCountry AS Country, COUNT(*) AS [Orders Delayses] FROM [Orders] WHERE ShippedDate > RequiredDate GROUP BY ShipCountry;
```

Below the query window, the Results pane displays the output of the query as a table with two columns: 'Country' and 'Orders Delayses'. The table contains 11 rows of data, with 'Argentina' highlighted in the first row.

	Country	Orders Delayses
1	Argentina	1
2	Austria	1
3	Belgium	1
4	Brazil	2
5	Finland	1
6	France	2
7	Germany	4
8	Ireland	3
9	Italy	2
10	Portugal	1
11	Spain	1

**Q8:Report all the orders which have been discounted with total price of order. Your result should show the total discount against each order. Output should look like this: (Order ID, Discount, Total Price)**

```
SELECT OrderID, SUM(Discount)AS Discount,SUM(UnitPrice) As [Total Price] FROM
[Order Details] GROUP BY OrderID HAVING SUM(Discount) > 0;
```

The screenshot shows the SQL Server Enterprise Manager interface. On the left, the Object Explorer displays the server hierarchy for 'DESKTOP-GJC66T4 (SQL Server 16.0.100)'. The central pane shows a SQL query in the 'final.sql' file:

```
SELECT OrderID, SUM(Discount) AS Discount, SUM(UnitPrice) As [Total Price] FROM [Order Details] GROUP BY OrderID HAVING SUM(Discount) > 0;
```

Below the query, the 'Results' tab displays the output of the query as a table with 11 rows and 3 columns: OrderID, Discount, and Total Price.

	OrderID	Discount	Total Price
1	10250	0.300000011920929	66.90
2	10251	0.100000001490116	49.20
3	10252	0.100000001490116	94.00
4	10254	0.300000011920929	30.80
5	10260	0.75	74.70
6	10262	0.20000002980232	71.40
7	10263	0.75	46.20
8	10264	0.150000005960464	22.90
9	10266	0.0500000007450581	30.40
10	10267	0.300000011920929	73.10
11	10269	0.100000001490116	29.80

**Q9:Write a query to list the number of orders which were shipped in the cities of each region in 1997. Show the number of order against each city. Your results should look like this: (ShipRegion, ShipCity, Numero-forders)**

```
SELECT ShipRegion, ShipCity, COUNT(*) AS NumberOfOrders FROM Orders WHERE YEAR(OrderDate) = '1997' GROUP BY ShipRegion, ShipCity ;
```

Object Explorer

Connect - \* \* \* \* \*

DESKTOP-GJC66T4 (SQL Server 16.0.100)

- Databases
  - System Databases
  - Database Snapshots
  - Lab2\_Tak
  - Lab2\_Home
  - Northwind
  - TestDB\_2022\_CS\_115
  - TestDB\_2022\_CS\_150
- Security
- Server Objects
- Replication
- Always On High Availability
- Management
- Integration Services Catalogs
- SQL Server Agent (Agent XPs disabled)
- XEvent Profiler

final.sql - DESKTOP-GJC66T4\DELL (62) \* \* \*

```
--SELECT OrderID, SUM(Discount)AS Discount,SUM(UnitPrice) AS [Total Price] FROM [Order Details] GROUP BY OrderID HAVING SUM(Discount) > 0;
```

```
SELECT ShipRegion, ShipCity, COUNT(*) AS NumberOfOrders FROM Orders WHERE YEAR(OrderDate) = '1997' GROUP BY ShipRegion, ShipCity ;
```

100 %

Results Messages

	ShipRegion	ShipCity	NumberOfOrders
1	NULL	Aachen	1
2	NM	Albuquerque	4
3	AK	Anchorage	3
4	NULL	Athens	4
5	NULL	Barcelona	2
6	Lara	Barquisimeto	3
7	NULL	Bergamo	5
8	NULL	Berlin	3
9	NULL	Bern	2
10	ID	Boise	15
11	NULL	Bracke	7