

DataBase System LAB3



Session 2022 - 2026

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Submitted To:

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1 Question 1:

1.1 Write a query to report orders which were delayed shipped.

SQL Query:

```
SELECT *
FROM Orders
WHERE Orders.ShippedDate > Orders.RequiredDate;
```

1.2 Result

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```
-- Write a query to report orders which were delayed shipped.
SELECT * FROM Orders WHERE Orders.ShippedDate > Orders.RequiredDate;

-- Our employees belong to how many countries. List the names.
SELECT Employees.Country FROM Employees;

-- Is there any employee who is not accountable?
SELECT * FROM Employees WHERE Employees.ReportsTo IS NULL;

-- List the names of products which have been discontinued.
SELECT Products.ProductName FROM Products WHERE Products.Discontinued = 1;
```

The Results pane displays the output of the first query, showing a list of orders that were delayed shipped. The results are as follows:

OrderID	CustomerID	EmployeeID	OrderDate	RequiredDate	ShippedDate	ShipVia	Freight	ShipName	ShipAddress	ShipCity	ShipRegion	ShipPostalCode	ShipCountry
10254	FOLKO	6	1996-07-24 00:00:00.000	1996-08-21 00:00:00.000	1996-08-23 00:00:00.000	3	3.67	Folk och fa HB	Åkergatan 24	Bräcke	NULL	S-544 67	Sweden
10271	SPLR	6	1996-08-01 00:00:00.000	1996-08-29 00:00:00.000	1996-09-30 00:00:00.000	2	4.54	Splf Rät Beer & Ale	P.O. Box 955	Lander	NY	02501	USA
10280	BERGS	2	1996-08-14 00:00:00.000	1996-09-11 00:00:00.000	1996-09-12 00:00:00.000	1	8.98	Berglunds snabbköp	Bergslagens 8	Luleå	NULL	S-958 22	Sweden
10302	SUPRD	4	1996-09-10 00:00:00.000	1996-10-08 00:00:00.000	1996-10-09 00:00:00.000	2	6.27	Suprêmes délices	Boulevard Tirou, 255	Charleroi	NULL	B-6000	Belgium
10309	HUNGO	3	1996-09-19 00:00:00.000	1996-10-17 00:00:00.000	1996-10-23 00:00:00.000	1	47.30	Hungry Owl All-Night Grocers	8 Johnston Road	Cork	Co. Cork	NULL	Ireland
10320	WARTH	5	1996-10-03 00:00:00.000	1996-10-17 00:00:00.000	1996-10-18 00:00:00.000	3	34.57	Wartten Herku	Tunkka 38	Oulu	NULL	00110	Finland
10380	HUNGO	8	1996-12-12 00:00:00.000	1997-01-09 00:00:00.000	1997-01-16 00:00:00.000	3	35.03	Hungry Owl All-Night Grocers	8 Johnston Road	Cork	Co. Cork	NULL	Ireland
10423	GOURL	6	1997-01-23 00:00:00.000	1997-02-06 00:00:00.000	1997-02-24 00:00:00.000	3	24.50	Gourmet Lanchonetes	Av. Brasil, 442	Campos	SP	04876-786	Brazil
10427	PRCO	4	1997-01-27 00:00:00.000	1997-02-24 00:00:00.000	1997-03-03 00:00:00.000	2	31.29	Piccolis und mehr	Gröbenweg 14	Stuttgart	NULL	70372	Austria
10433	PRIN	3	1997-02-03 00:00:00.000	1997-03-03 00:00:00.000	1997-03-04 00:00:00.000	3	73.83	Princesa Isabel Vinhos	Estrada da saúde n. 58	Lisboa	NULL	1756	Portugal
10451	QUICK	4	1997-02-19 00:00:00.000	1997-03-05 00:00:00.000	1997-03-12 00:00:00.000	3	189.09	QUICK-Stop	Taucherstraße 10	Cunewalde	NULL	01307	Germany
10483	WHITC	7	1997-03-24 00:00:00.000	1997-04-21 00:00:00.000	1997-04-25 00:00:00.000	2	15.28	White Clover Markets	1029 - 12th Ave. S.	Seattle	WA	98124	USA
10515	QUICK	2	1997-04-23 00:00:00.000	1997-05-07 00:00:00.000	1997-05-23 00:00:00.000	1	204.47	QUICK-Stop	Taucherstraße 10	Cunewalde	NULL	01307	Germany
10523	SEVES	7	1997-05-01 00:00:00.000	1997-05-29 00:00:00.000	1997-06-30 00:00:00.000	2	77.63	Seven Seas Imports	90 Wadhurst Rd.	London	NULL	OX15 4NB	UK
10545	LAZYK	8	1997-05-22 00:00:00.000	1997-06-19 00:00:00.000	1997-06-26 00:00:00.000	2	11.92	Lazy K Kountry Store	12 Orchestra Terrace	Walla Walla	WA	99362	USA

The status bar at the bottom indicates that the query was executed successfully, returning 35 rows.

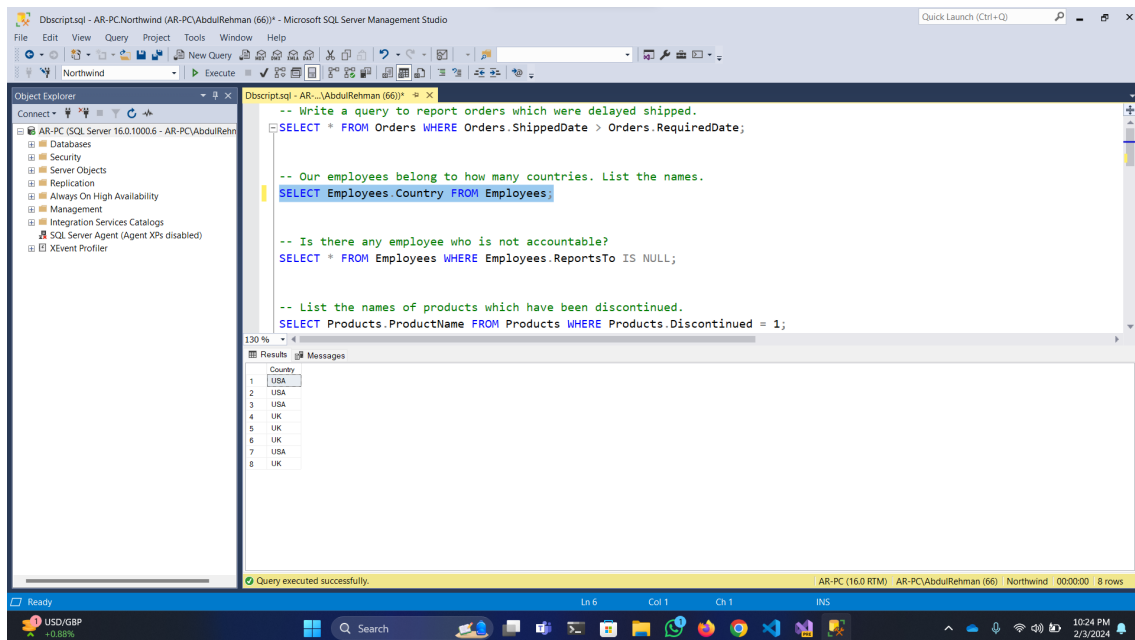
2 Question 2:

2.1 Our employees belong to how many countries. List the names.

SQL Query:

```
SELECT Employees.Country  
FROM Employees;
```

2.2 Result



The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The left pane displays the Object Explorer with the 'Northwind' database selected. The right pane shows a query window with the following SQL code:

```
-- Write a query to report orders which were delayed shipped.  
SELECT * FROM Orders WHERE Orders.ShippedDate > Orders.RequiredDate;  
  
-- Our employees belong to how many countries. List the names.  
SELECT Employees.Country FROM Employees;  
  
-- Is there any employee who is not accountable?  
SELECT * FROM Employees WHERE Employees.ReportsTo IS NULL;  
  
-- List the names of products which have been discontinued.  
SELECT Products.ProductName FROM Products WHERE Products.Discontinued = 1;
```

The query results are displayed in the bottom pane, showing a table with one column, 'Country', and eight rows of data:

Country
USA
USA
USA
UK
UK
UK
USA
UK

The status bar at the bottom indicates that the query was executed successfully, returning 8 rows.

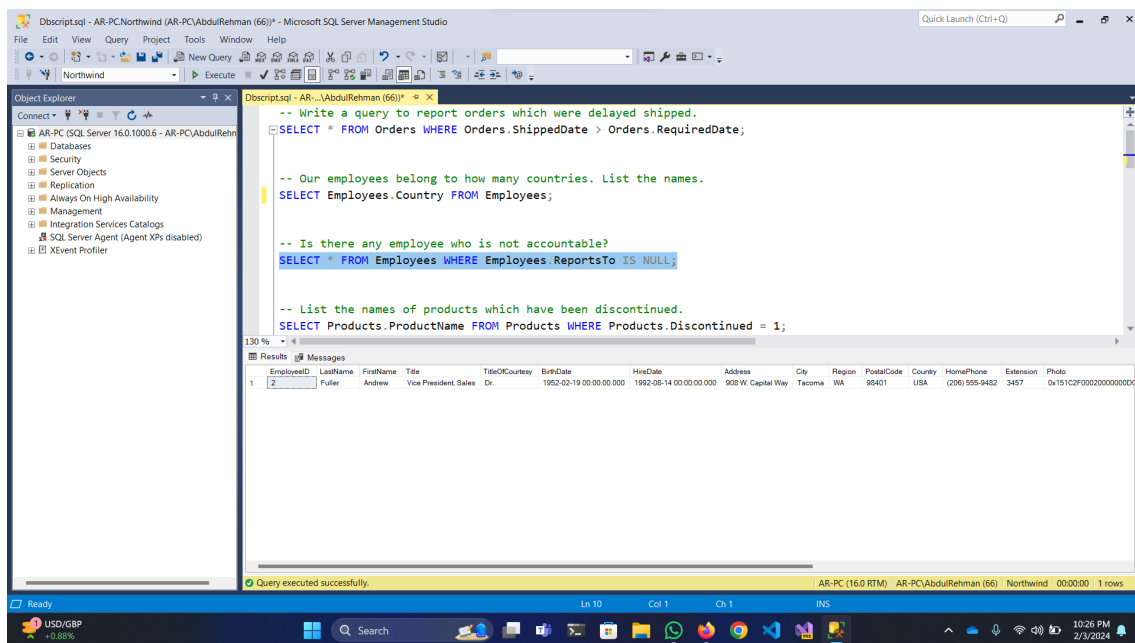
3 Question 3:

3.1 Is there any employee who is not accountable?

SQL Query:

```
SELECT *  
FROM Employees  
WHERE Employees.ReportsTo IS NULL;
```

3.2 Result



The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL query:

```
-- Write a query to report orders which were delayed shipped.  
SELECT * FROM Orders WHERE Orders.ShippedDate > Orders.RequiredDate;  
  
-- Our employees belong to how many countries. List the names.  
SELECT Employees.Country FROM Employees;  
  
-- Is there any employee who is not accountable?  
SELECT * FROM Employees WHERE Employees.ReportsTo IS NULL;  
  
-- List the names of products which have been discontinued.  
SELECT Products.ProductName FROM Products WHERE Products.Discontinued = 1;
```

The query results are displayed in the Results pane, showing a single row for the employee Andrew Fuller:

EmployeeID	LastName	FirstName	Title	TitleOfCourtesy	BirthDate	HireDate	Address	City	Region	PostalCode	Country	HomePhone	Extension	Photo
1	Fuller	Andrew	Vice President, Sales	Dr.	1952-02-19 00:00:00.000	1992-08-14 00:00:00.000	908 W. Capital Way	Tacoma	WA	98401	USA	(206) 555-9482	3457	D:\151C2F00020000000000\

The status bar at the bottom indicates that the query was executed successfully, returning 1 row.

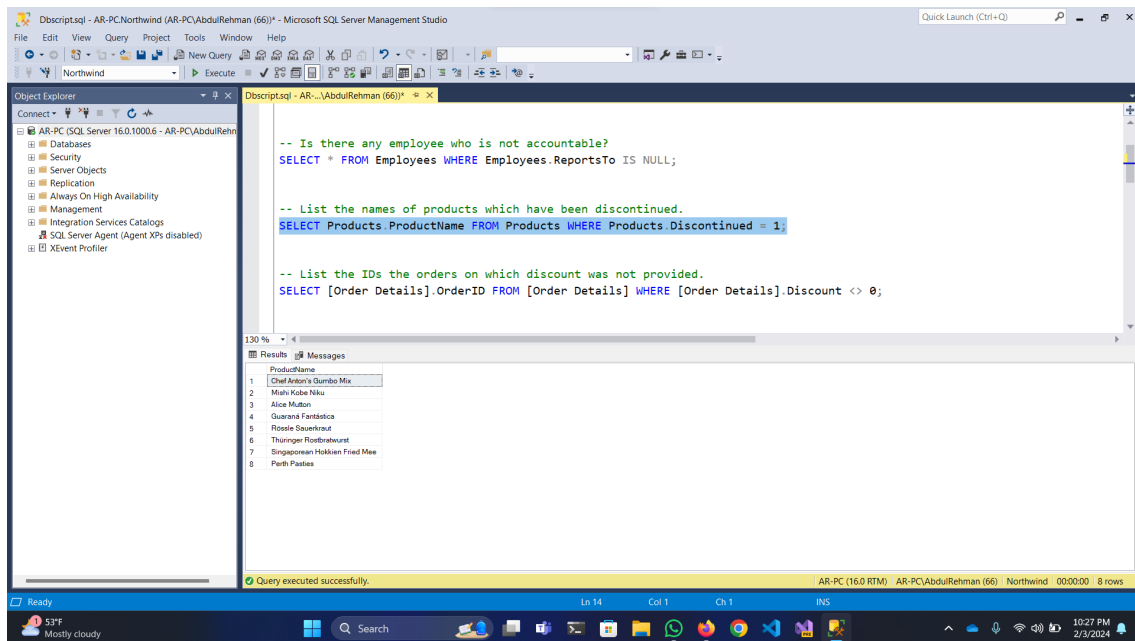
4 Question 4:

4.1 List the names of products which have not been discontinued.

SQL Query:

```
SELECT Products.ProductName
FROM Products
WHERE Products.Discontinued = 0;
```

4.2 Result



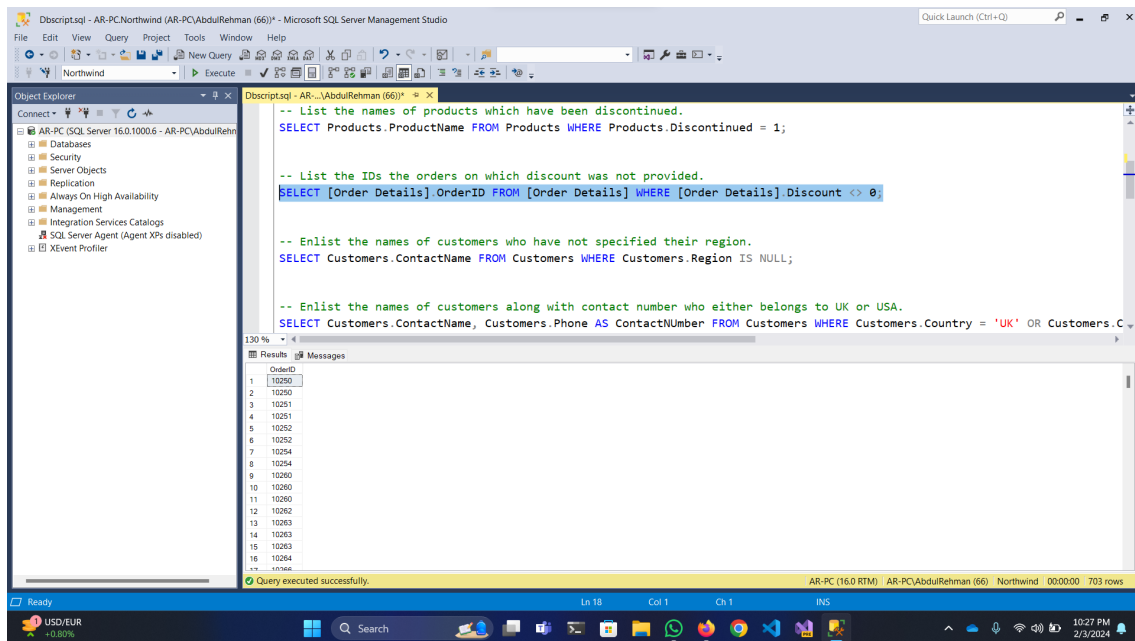
5 Question 5:

5.1 List the IDs of the orders on which discount was 0.1 or less.

SQL Query:

```
SELECT [Order Details].OrderID
FROM [Order Details]
WHERE ([Order Details].Discount <= 0.1) AND [Order Details].Discount > 0;
```

5.2 Result



The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor displays the following SQL query:

```
-- List the names of products which have been discontinued.
SELECT Products.ProductName FROM Products WHERE Products.Discontinued = 1;

-- List the IDs the orders on which discount was not provided.
SELECT [Order Details].OrderID FROM [Order Details] WHERE [Order Details].Discount <> 0;

-- Enlist the names of customers who have not specified their region.
SELECT Customers.ContactName FROM Customers WHERE Customers.Region IS NULL;

-- Enlist the names of customers along with contact number who either belongs to UK or USA.
SELECT Customers.ContactName, Customers.Phone AS ContactNumber FROM Customers WHERE Customers.Country = 'UK' OR Customers.C...
```

The query results are displayed in the Results pane, showing a list of OrderIDs:

OrderID
10290
10290
10251
10251
10252
10252
10254
10254
10260
10260
10260
10262
10263
10263
10263
10264
10264
10264

The status bar at the bottom indicates that the query was executed successfully, returning 703 rows.

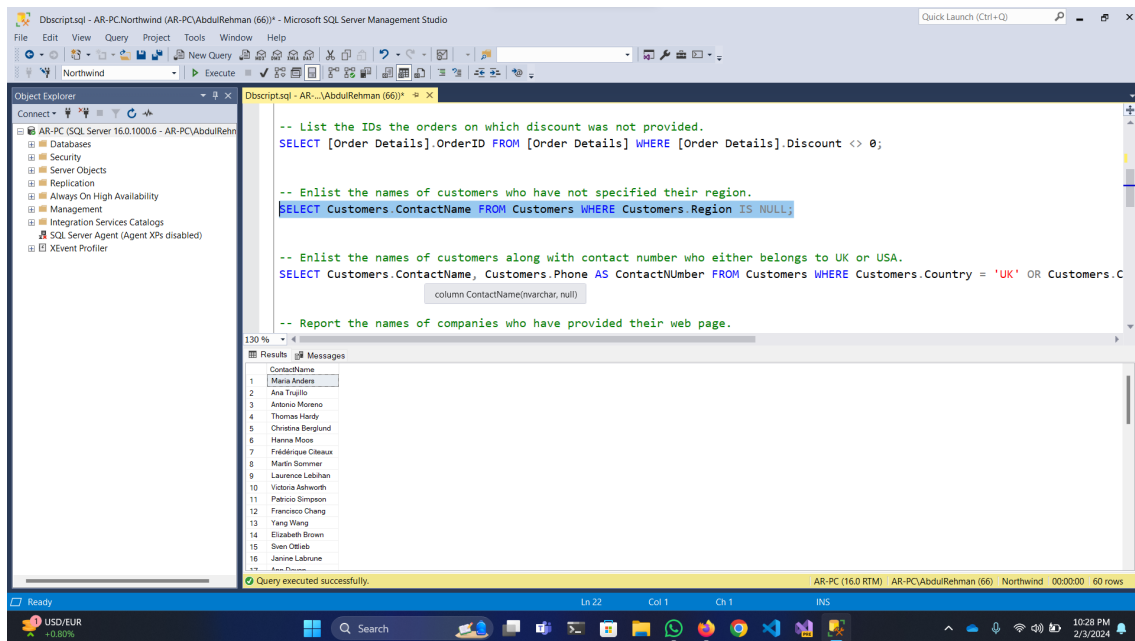
6 Question 6:

6.1 Enlist the names of customers along with contact number who either belong to UK or USA.

SQL Query:

```
SELECT Customers.ContactName, Customers.Phone AS ContactNumber
FROM Customers
WHERE Customers.Country = 'UK' OR Customers.Country = 'USA';
```

6.2 Result



The screenshot displays the Microsoft SQL Server Enterprise Manager interface. The left pane shows the 'Object Explorer' with the 'Northwind' database selected. The right pane shows a query window with the following SQL code:

```
-- List the IDs the orders on which discount was not provided.
SELECT [Order Details].OrderID FROM [Order Details] WHERE [Order Details].Discount <> 0;

-- Enlist the names of customers who have not specified their region.
SELECT Customers.ContactName FROM Customers WHERE Customers.Region IS NULL;

-- Enlist the names of customers along with contact number who either belongs to UK or USA.
SELECT Customers.ContactName, Customers.Phone AS ContactNumber FROM Customers WHERE Customers.Country = 'UK' OR Customers.C
column ContactName(nvarchar, null)

-- Report the names of companies who have provided their web page.
```

The query results are displayed in the 'Results' pane, showing a list of customer names:

ContactName
1 Maria Anders
2 Ana Trujillo
3 Antonio Moreno
4 Thomas Hardy
5 Christine Berglund
6 Hanna Moos
7 Friederike Ceballos
8 Martin Sommer
9 Laurence Labihan
10 Victoria Ashworth
11 Patricia Simpson
12 Francisco Chang
13 Yang Wang
14 Elizabeth Brown
15 Susan Odell
16 Janine Labruno

The status bar at the bottom indicates that the query was executed successfully, returning 60 rows.

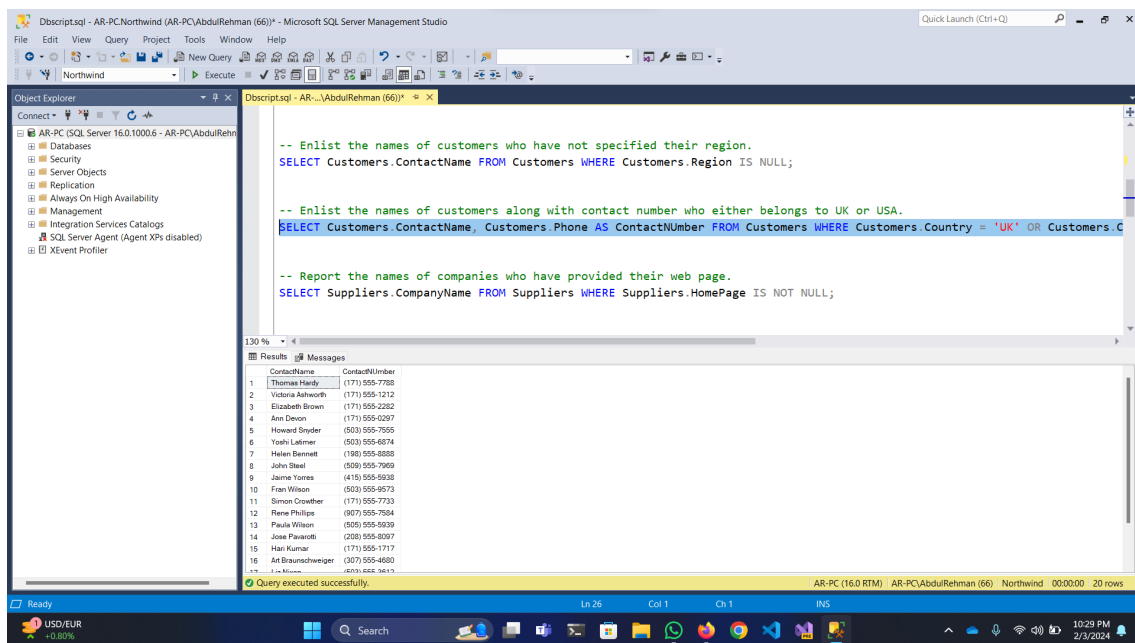
7 Question 7:

7.1 List the names of products which have not been discontinued.

SQL Query:

```
SELECT Products.ProductName
FROM Products
WHERE Products.Discontinued = 0;
```

7.2 Result



The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The left pane displays the Object Explorer with the 'Northwind' database selected. The right pane shows a query window with the following SQL code:

```
-- Enlist the names of customers who have not specified their region.
SELECT Customers.ContactName FROM Customers WHERE Customers.Region IS NULL;

-- Enlist the names of customers along with contact number who either belongs to UK or USA.
SELECT Customers.ContactName, Customers.Phone AS ContactNumber FROM Customers WHERE Customers.Country = 'UK' OR Customers.C

-- Report the names of companies who have provided their web page.
SELECT Suppliers.CompanyName FROM Suppliers WHERE Suppliers.HomePage IS NOT NULL;
```

The bottom pane shows the results of the first query, displaying a table with two columns: ContactName and ContactNumber. The results are as follows:

ContactName	ContactNumber
Thomas Hardy	(171) 555-7788
Victoria Ashworth	(171) 555-1212
Elizabeth Brown	(171) 555-2282
Ann Devon	(171) 555-0297
Howard Snyder	(503) 555-7955
Yoshi Latimer	(503) 555-6874
Helen Bennett	(180) 555-8088
John Steel	(509) 555-7969
Jaime Yonnes	(415) 555-5038
Fran Wilson	(503) 555-9573
Simon Crowther	(171) 555-7733
Rene Phillips	(907) 555-7584
Paula Wilson	(505) 555-5039
Jose Pavarotti	(204) 555-8097
Hari Kumar	(171) 555-1717
Art Braunschweiger	(307) 555-4680

The status bar at the bottom indicates that the query was executed successfully, returning 20 rows.

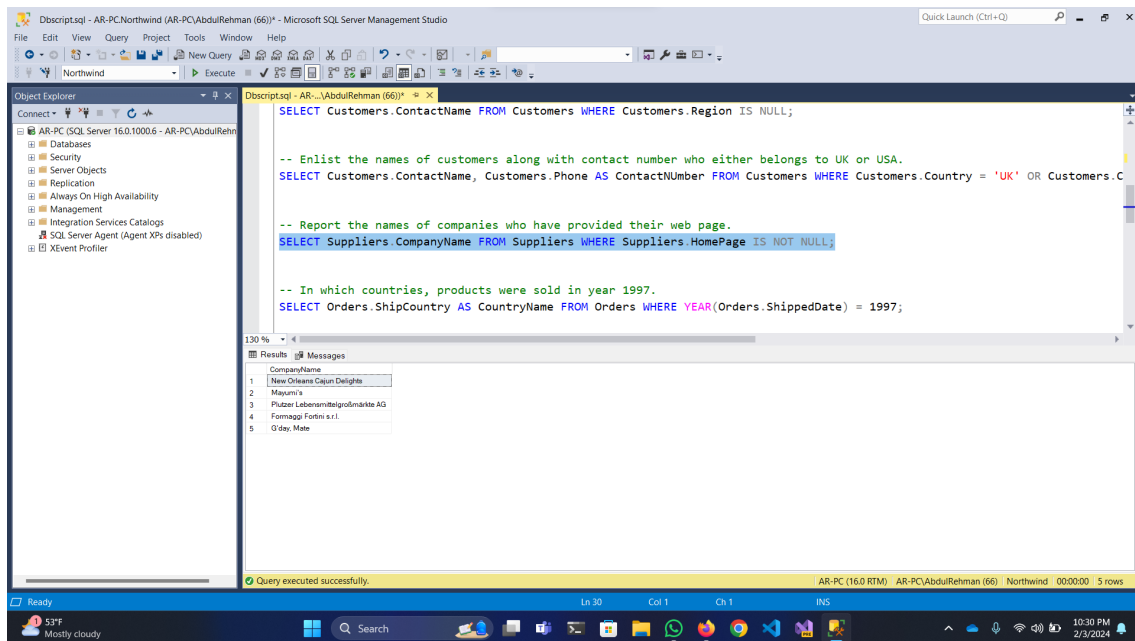
8 Question 8:

8.1 List the IDs of the orders on which discount was 0.1 or less.

SQL Query:

```
SELECT [Order Details].OrderID
FROM [Order Details]
WHERE ([Order Details].Discount <= 0.1) AND [Order Details].Discount > 0;
```

8.2 Result



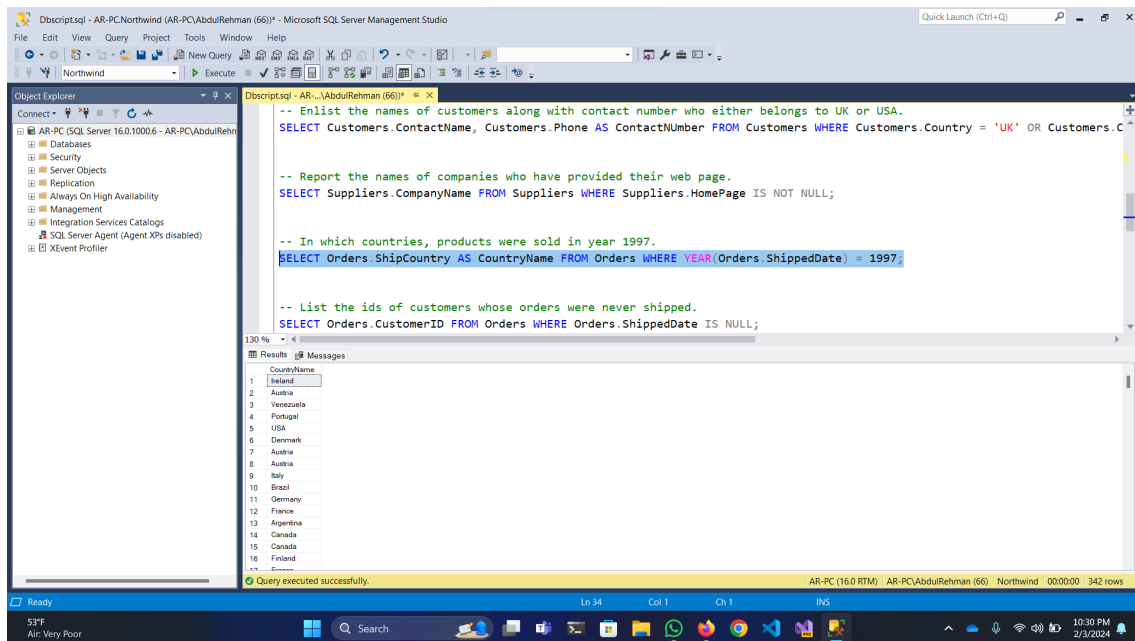
9 Question 9:

9.1 Enlist the names of customers who have not specified their region.

SQL Query:

```
SELECT Customers.ContactName
FROM Customers
WHERE Customers.Region IS NULL;
```

9.2 Result



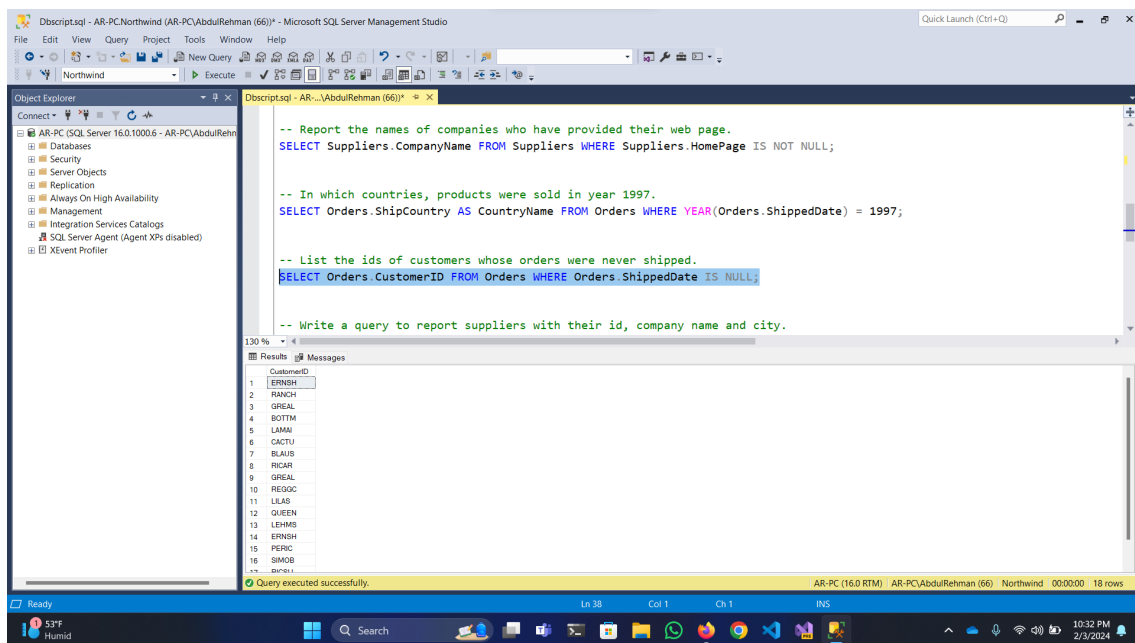
10 Question 10:

10.1 List the IDs of customers whose orders were never shipped.

SQL Query:

```
SELECT Orders.CustomerID
FROM Orders
WHERE Orders.ShippedDate IS NULL;
```

10.2 Result



The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```
-- Report the names of companies who have provided their web page.
SELECT Suppliers.CompanyName FROM Suppliers WHERE Suppliers.HomePage IS NOT NULL;

-- In which countries, products were sold in year 1997.
SELECT Orders.ShipCountry AS CountryName FROM Orders WHERE YEAR(Orders.ShippedDate) = 1997;

-- List the ids of customers whose orders were never shipped.
SELECT Orders.CustomerID FROM Orders WHERE Orders.ShippedDate IS NULL;

-- Write a query to report suppliers with their id, company name and city.
```

The query results are displayed in the Results pane, showing a list of CustomerIDs:

CustomerID
1 ERNSH
2 BRANCH
3 GREAL
4 BOTTM
5 LAMM
6 CACTU
7 BLAUS
8 RICAR
9 GREAL
10 REGOC
11 LILAS
12 QUEEN
13 LEHMS
14 ERNSH
15 PERIC
16 SINOB

The status bar at the bottom indicates that the query was executed successfully, returning 18 rows.

11 Question 11:

11.1 Write a query to report suppliers with their id, company name, and city.

SQL Query:

```
SELECT Suppliers.SupplierID, Suppliers.CompanyName, Suppliers.City FROM Suppliers
```

11.2 Result

The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The left pane displays the 'Object Explorer' with the 'Northwind' database selected. The right pane shows a query window with the following SQL code:

```
SELECT Orders.ShipCountry AS CountryName FROM Orders WHERE YEAR(Orders.ShippedDate) = 1997;

-- List the ids of customers whose orders were never shipped.
SELECT Orders.CustomerID FROM Orders WHERE Orders.ShippedDate IS NULL;

-- Write a query to report suppliers with their id, company name and city.
SELECT Suppliers.SupplierID, Suppliers.CompanyName, Suppliers.City FROM Suppliers;

-- Our employees belong to how many countries. List them who are used to live in London.
SELECT COUNT(Employees.Country) AS CountryCount FROM Employees WHERE Employees.City = 'London';
```

The bottom pane shows the 'Results' tab with the following data:

SupplierID	CompanyName	City
1	Exotic Liquids	London
2	New Orleans Cajun Delights	New Orleans
3	Grandma Kelly's Homestead	Ann Arbor
4	Tokyo Traders	Tokyo
5	Cooperativa de Quesos 'Las Cabras'	Quindio
6	Mayumi's	Osaika
7	Pavlova, Ltd.	Melbourne
8	Specialty Biscuits, Ltd.	Manchester
9	PB Knäckebröd AB	Göteborg
10	Refrescos Americanos LTDA	Sao Paulo
11	Hei Sultwaren GmbH & Co. KG	Berlin
12	Putzer Lebensmittelgroßhandels AG	Frankfurt
13	Nord-Ost-Fisch Handelsgesellschaft mbH	Ravenna
14	Formaggi Fortini s.r.l.	Sandriika
15	Norske Meierier	Band
16	Bgfood Brokerage	Bangkok
17	Bonatch, Bonatch, BD	Bonatch

The status bar at the bottom indicates 'Query executed successfully' and '29 rows'.

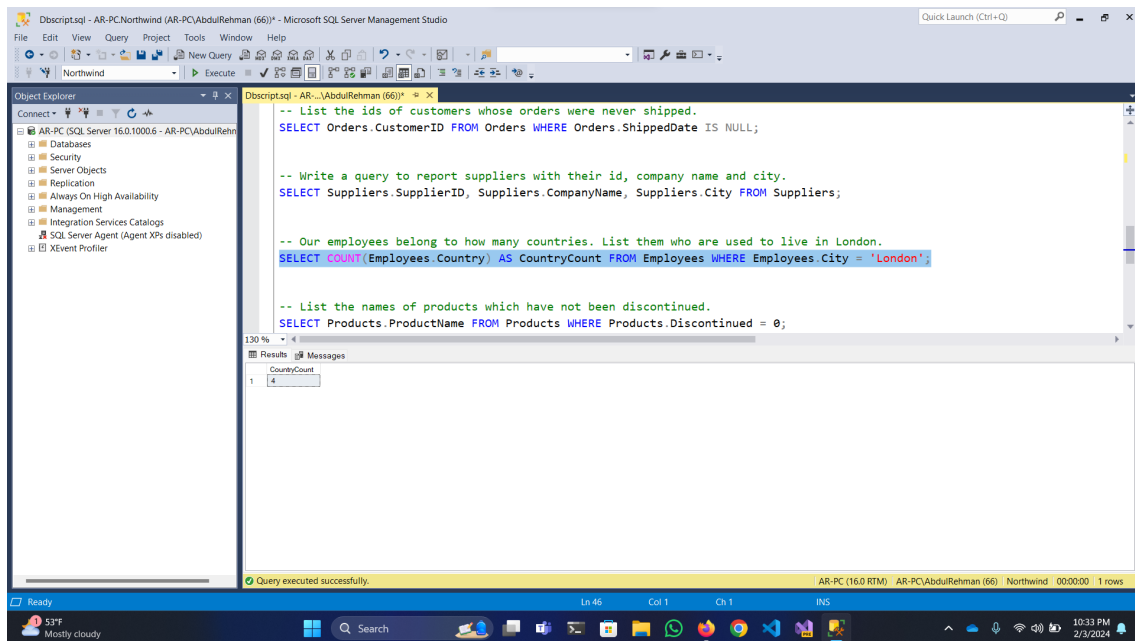
12 Question 12:

12.1 Our employees belong to how many countries. List them who used to live in London.

SQL Query:

```
SELECT COUNT(DISTINCT Employees.Country) AS CountryCount
FROM Employees
WHERE Employees.City = 'London';
```

12.2 Result



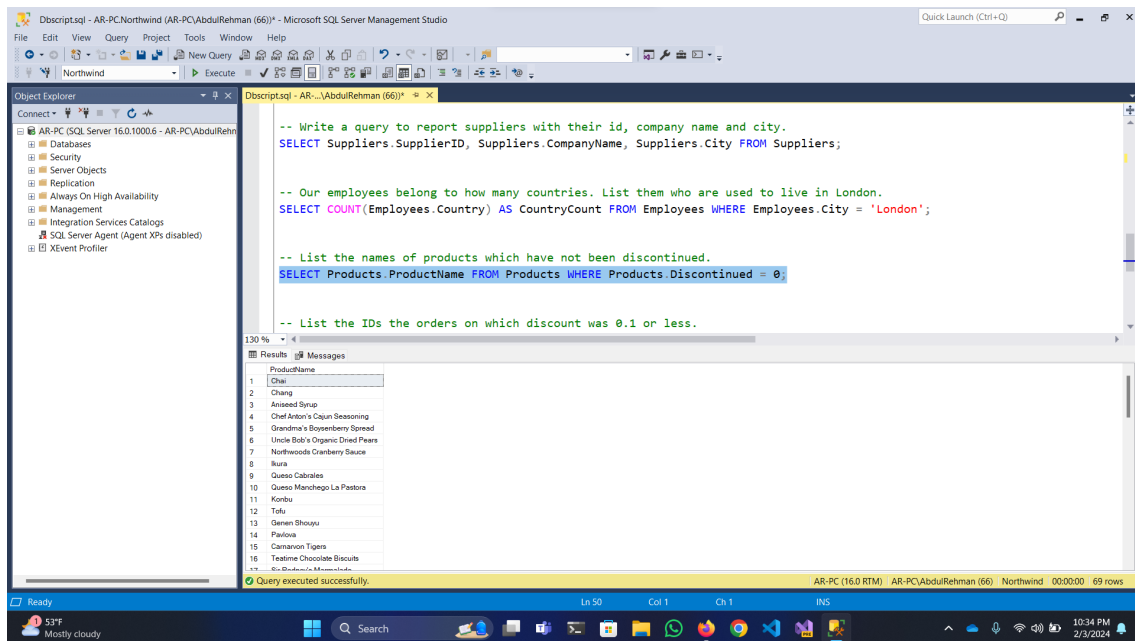
13 Question 13:

13.1 List the names of products which have not been discontinued.

SQL Query:

```
SELECT Products.ProductName
FROM Products
WHERE Products.Discontinued = 0;
```

13.2 Result



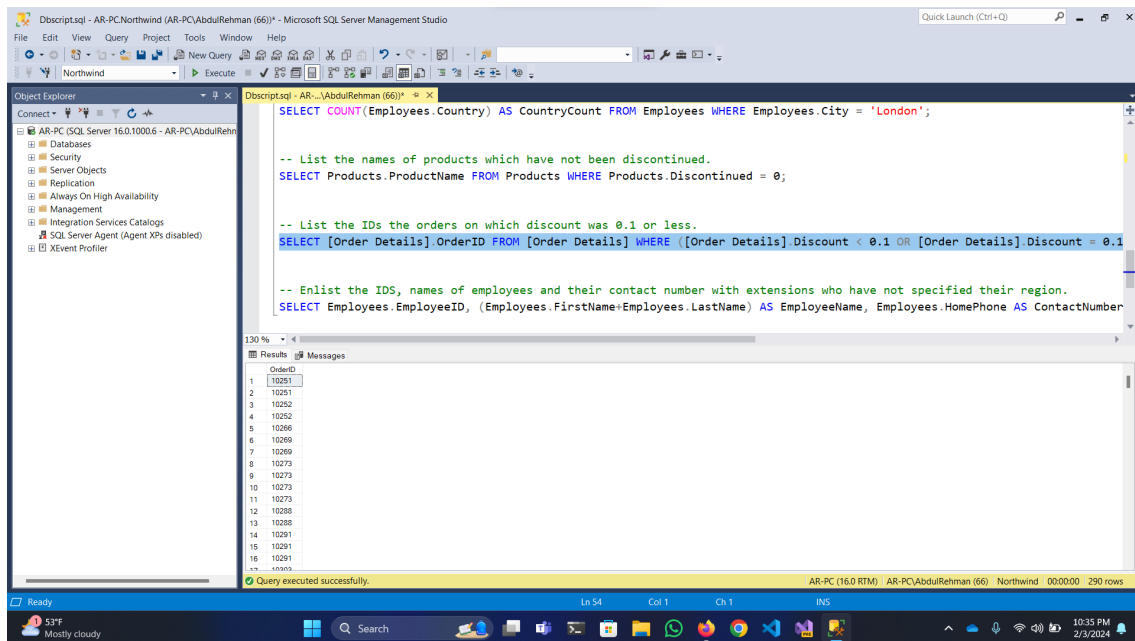
14 Question 14:

14.1 List the IDs of the orders on which discount was 0.1 or less.

SQL Query:

```
SELECT [Order Details].OrderID
FROM [Order Details]
WHERE ([Order Details].Discount <= 0.1) AND [Order Details].Discount > 0;
```

14.2 Result



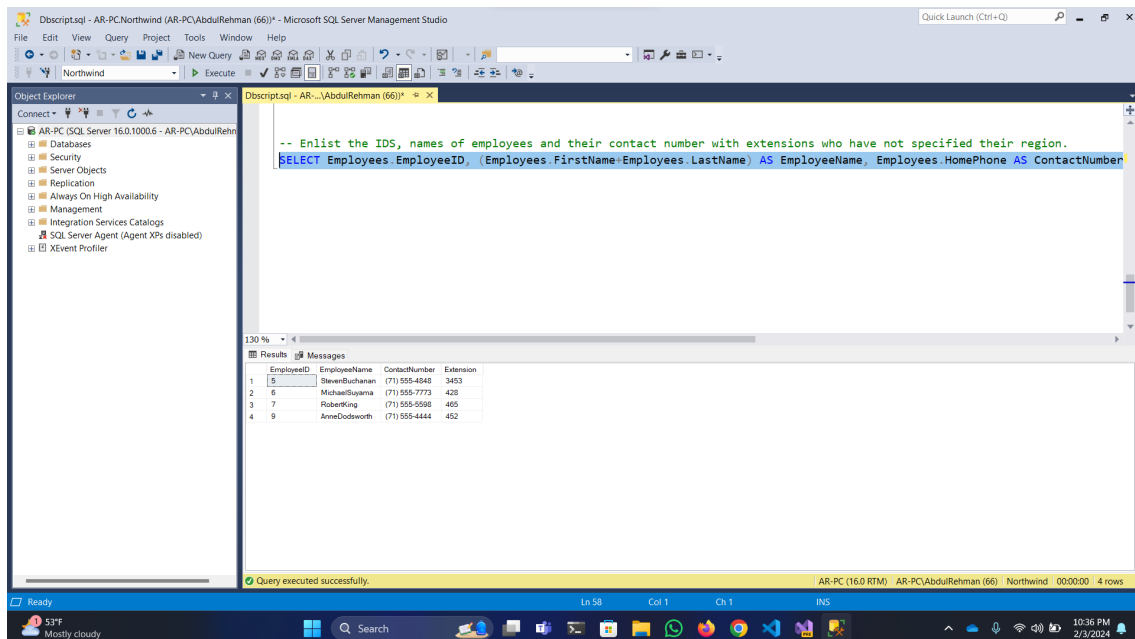
15 Question 15:

15.1 Enlist the IDs, names of employees, and their contact number with extensions who have not specified their region.

SQL Query:

```
SELECT Employees.EmployeeID,  
       CONCAT(Employees.FirstName, '+', Employees.LastName) AS EmployeeName,  
       Employees.HomePhone AS ContactNumber,  
       Employees.Extension  
FROM Employees  
WHERE Employees.Region IS NULL;
```

15.2 Result



The screenshot displays the Microsoft SQL Server Management Studio interface. The query editor shows the following SQL query:

```
-- Enlist the IDs, names of employees and their contact number with extensions who have not specified their region.  
SELECT Employees.EmployeeID, (Employees.FirstName+Employees.LastName) AS EmployeeName, Employees.HomePhone AS ContactNumber,  
       Employees.Extension
```

The query has been executed successfully, and the results are displayed in the Results pane. The results table contains the following data:

EmployeeID	EmployeeName	ContactNumber	Extension
5	StevenBuchanan	(71) 555-4845	3453
6	MichaelSuyama	(71) 555-7773	428
7	RobertKing	(71) 555-8598	465
9	AnneDodsworth	(71) 555-4444	452

The status bar at the bottom indicates that the query was executed successfully and returned 4 rows.