

Syed Asghar Abbas Zaidi (07201)

Databases Lab 7

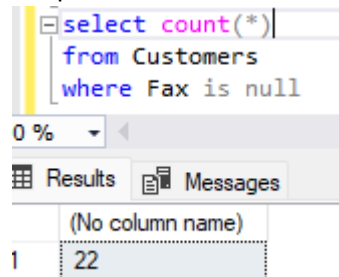
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4 Exercises

The ERD Diagram for the Northwind Database is as shown in Fig 1.

1. Retrieve total number of customers do not have a fax number.

Output: Count of Customers with no fax number.



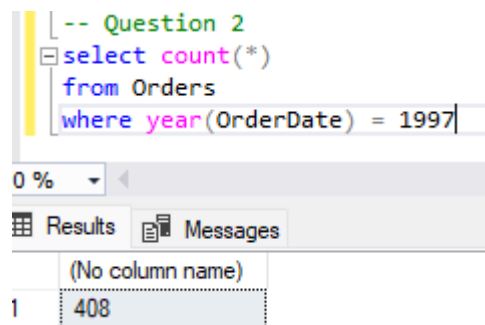
The screenshot shows a SQL query in a text editor: `select count(*) from Customers where Fax is null`. Below the query, there are tabs for 'Results' and 'Messages'. The 'Results' tab is active, showing a table with one row and one column. The column header is '(No column name)' and the value is 22.

	(No column name)
1	22



2. Retrieve the total number of orders placed in 1997.

Output: Count of Orders in 1997.

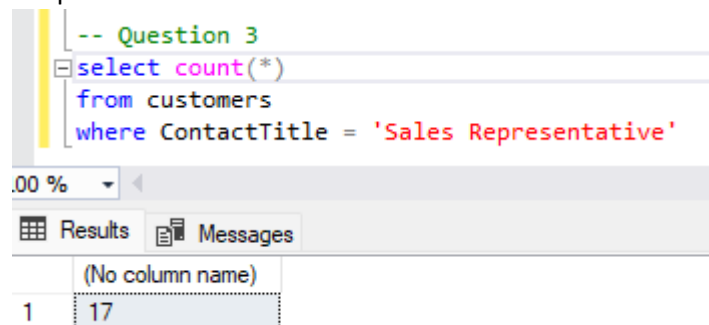


The screenshot shows a SQL query in a text editor: `-- Question 2 select count(*) from Orders where year(OrderDate) = 1997`. Below the query, there are tabs for 'Results' and 'Messages'. The 'Results' tab is active, showing a table with one row and one column. The column header is '(No column name)' and the value is 408.

	(No column name)
1	408

3. Find the number of customers who are 'Sales Representative'.

Output: Count of Customers.



The screenshot shows a SQL query in a text editor: `-- Question 3 select count(*) from customers where ContactTitle = 'Sales Representative'`. Below the query, there are tabs for 'Results' and 'Messages'. The 'Results' tab is active, showing a table with one row and one column. The column header is '(No column name)' and the value is 17.

	(No column name)
1	17

4. Select total number of products ordered in Order ID 11070.

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Output: Total number of products.

```
-- Question 4 Asghar
select count(*)
from [Order Details]
where OrderID = 11070
```

100 %

Results Messages

	(No column name)
1	4

5. Retrieve total number of customers from the 'UK' or 'USA'.

Output: Total number of customers.

```
-- Question 5 Asghar
select count(*)
from customers
where country = 'UK' or country = 'USA'
```

100 %

Results Messages

	(No column name)
1	20



6. Retrieve the total number of units of all available items.

Output: Sum of all units.

```
-- Question 6 Asghar
--select * from Products
select sum(UnitsInStock)
from Products
```

100 %

Results Messages

	(No column name)
1	3119

7. Retrieve the worth of all available stock (total number of available units × their prices).

Output: Worth of all available products.

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```
-- Question 7 Asghar
select UnitsInStock, UnitPrice, UnitsInStock * UnitPrice as [Stock's Value]
from Products
```

100 %

Results Messages

	UnitsInStock	UnitPrice	Stock's Value
1	39	18.00	702.00
2	17	19.00	323.00
3	13	10.00	130.00
4	53	22.00	1166.00
5	0	21.35	0.00
6	120	25.00	3000.00
7	15	30.00	450.00
8	6	40.00	240.00
9	29	97.00	2813.00
10	31	31.00	961.00
11	22	21.00	462.00
12	86	38.00	3268.00
13	24	6.00	144.00
14	35	23.25	813.75
15	39	15.50	604.50

Now SUMMING ALL THE VALUES

```
-- Question 7 Asghar
select sum(UnitsInStock * UnitPrice) as [Total Stock's Value]
from Products
```

100 %

Results Messages

	Total Stock's Value
1	74050.85

8. Find the total number of Employees who live in London.

Output: Total number of employees.

```
-- Question 8 Asghar
select count(*) as [Employees living in London]
from Employees
where City = 'London'
```

100 %

Results Messages

	Employees living in London
1	4

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9. Find the total number of Female Employees who are not doctors.

Output: Total number of employees.

```
-- Question 9 Asghar
select count(*)
from Employees
where TitleOfCourtesy = 'Ms.' or TitleOfCourtesy = 'Mrs.'
```

100 %

Results Messages

	(No column name)
1	5

10. Fetch the following details:

Output: OrderID, OrderDate, ProductName. Result contains 2155 rows.

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```
-- Question 10 Asghar
select [Order Details].OrderID, OrderDate, ProductName
from Orders
Inner Join [Order Details] On Orders.OrderID = [Order Details].OrderID
Inner Join Products On [Order Details].ProductID = Products.ProductID

-- Question 11 Asghar
--select [Order Details].OrderID, OrderDate, ProductName
--from Orders
--Inner Join [Order Details] On Orders.OrderID = [Order Details].OrderID
```

100 %

Results Messages

	OrderID	OrderDate	ProductName
2125	10845	1998-01-21 00:00:00.000	Wimmers gute Semmelknödel
2126	10859	1998-01-29 00:00:00.000	Wimmers gute Semmelknödel
2127	10872	1998-02-05 00:00:00.000	Wimmers gute Semmelknödel
2128	10876	1998-02-09 00:00:00.000	Wimmers gute Semmelknödel
2129	10957	1998-03-18 00:00:00.000	Wimmers gute Semmelknödel
2130	10968	1998-03-23 00:00:00.000	Wimmers gute Semmelknödel
2131	11031	1998-04-17 00:00:00.000	Wimmers gute Semmelknödel
2132	11053	1998-04-27 00:00:00.000	Wimmers gute Semmelknödel
2133	11072	1998-05-05 00:00:00.000	Wimmers gute Semmelknödel
2134	11077	1998-05-06 00:00:00.000	Wimmers gute Semmelknödel
2135	10332	1996-10-17 00:00:00.000	Zaanse koeken
2136	10418	1997-01-17 00:00:00.000	Zaanse koeken
2137	10431	1997-01-30 00:00:00.000	Zaanse koeken
2138	10480	1997-03-20 00:00:00.000	Zaanse koeken
2139	10512	1997-04-21 00:00:00.000	Zaanse koeken
2140	10558	1997-06-04 00:00:00.000	Zaanse koeken
2141	10585	1997-07-01 00:00:00.000	Zaanse koeken
2142	10656	1997-09-04 00:00:00.000	Zaanse koeken
2143	10657	1997-09-04 00:00:00.000	Zaanse koeken
2144	10684	1997-09-26 00:00:00.000	Zaanse koeken
2145	10685	1997-09-29 00:00:00.000	Zaanse koeken
2146	10699	1997-10-09 00:00:00.000	Zaanse koeken
2147	10710	1997-10-20 00:00:00.000	Zaanse koeken
2148	10714	1997-10-22 00:00:00.000	Zaanse koeken
2149	10755	1997-11-26 00:00:00.000	Zaanse koeken
2150	10762	1997-12-02 00:00:00.000	Zaanse koeken
2151	10837	1998-01-16 00:00:00.000	Zaanse koeken
2152	10875	1998-02-06 00:00:00.000	Zaanse koeken
2153	10928	1998-03-05 00:00:00.000	Zaanse koeken
2154	10956	1998-03-17 00:00:00.000	Zaanse koeken
2155	10977	1998-03-26 00:00:00.000	Zaanse koeken

11. Fetch the following details: Output: Order ID, Order Date, Product Name, Customer Name.
Result contains 2155 rows.

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```
-- Question 11 Asghar
select [Order Details].OrderID, OrderDate, ProductName, Customers.CompanyName as CustomerName
from Orders
Inner Join [Order Details] On Orders.OrderID = [Order Details].OrderID
Inner Join Products On [Order Details].ProductID = Products.ProductID
Inner Join Customers on Customers.CustomerID = Orders.CustomerID
```

100 %

Results Messages

	OrderID	OrderDate	ProductName	CustomerName
2125	10845	1998-01-21 00:00:00.000	Wimmers gute Semmelknödel	QUICK-Stop
2126	10859	1998-01-29 00:00:00.000	Wimmers gute Semmelknödel	Frankenversand
2127	10872	1998-02-05 00:00:00.000	Wimmers gute Semmelknödel	Godos Cocina Típica
2128	10876	1998-02-09 00:00:00.000	Wimmers gute Semmelknödel	Bon app'
2129	10957	1998-03-18 00:00:00.000	Wimmers gute Semmelknödel	HILARION-Abastos
2130	10968	1998-03-23 00:00:00.000	Wimmers gute Semmelknödel	Ernst Handel
2131	11031	1998-04-17 00:00:00.000	Wimmers gute Semmelknödel	Save-a-lot Markets
2132	11053	1998-04-27 00:00:00.000	Wimmers gute Semmelknödel	Piccolo und mehr
2133	11072	1998-05-05 00:00:00.000	Wimmers gute Semmelknödel	Ernst Handel
2134	11077	1998-05-06 00:00:00.000	Wimmers gute Semmelknödel	Rattlesnake Canyon Grocery
2135	10332	1996-10-17 00:00:00.000	Zaanse koeken	Mère Paillarde
2136	10418	1997-01-17 00:00:00.000	Zaanse koeken	QUICK-Stop
2137	10431	1997-01-30 00:00:00.000	Zaanse koeken	Bottom-Dollar Markets
2138	10480	1997-03-20 00:00:00.000	Zaanse koeken	Folies gourmandes
2139	10512	1997-04-21 00:00:00.000	Zaanse koeken	Familia Arquibaldo
2140	10558	1997-06-04 00:00:00.000	Zaanse koeken	Around the Horn
2141	10585	1997-07-01 00:00:00.000	Zaanse koeken	Wellington Importadora
2142	10656	1997-09-04 00:00:00.000	Zaanse koeken	Great Lakes Food Market
2143	10657	1997-09-04 00:00:00.000	Zaanse koeken	Save-a-lot Markets
2144	10684	1997-09-26 00:00:00.000	Zaanse koeken	Ottlies Käseladen
2145	10685	1997-09-29 00:00:00.000	Zaanse koeken	Gourmet Lanchonetes
2146	10699	1997-10-09 00:00:00.000	Zaanse koeken	Morgenstern Gesundkost
2147	10710	1997-10-20 00:00:00.000	Zaanse koeken	Franchi S.p.A.
2148	10714	1997-10-22 00:00:00.000	Zaanse koeken	Save-a-lot Markets
2149	10755	1997-11-26 00:00:00.000	Zaanse koeken	Bon app'
2150	10762	1997-12-02 00:00:00.000	Zaanse koeken	Folk och fä HB
2151	10837	1998-01-16 00:00:00.000	Zaanse koeken	Berglunds snabbköp
2152	10875	1998-02-06 00:00:00.000	Zaanse koeken	Berglunds snabbköp
2153	10928	1998-03-05 00:00:00.000	Zaanse koeken	Galería del gastrónomo
2154	10956	1998-03-17 00:00:00.000	Zaanse koeken	Blauer See Delikatessen
2155	10977	1998-03-26 00:00:00.000	Zaanse koeken	Folk och fä HB

12. Select all orders having products belonging to 'Seafood' category.

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Output: OrderID, OrderDate, ProductName, CategoryName. Result contains 330 rows.

```
-- Question 12 Asghar
select [Order Details].OrderID, OrderDate, ProductName, CategoryName
from Orders
Inner Join [Order Details] On Orders.OrderID = [Order Details].OrderID
Inner Join Products On [Order Details].ProductID = Products.ProductID
Inner Join Customers on Customers.CustomerID = Orders.CustomerID
Inner Join Categories on Products.CategoryID = Categories.CategoryID
where CategoryName = 'Seafood'
```

	OrderID	OrderDate	ProductName	CategoryName
317	11059	1998-04-29 00:00:00.000	Konbu	Seafood
318	11063	1998-04-30 00:00:00.000	Boston Crab Meat	Seafood
319	11063	1998-04-30 00:00:00.000	Jack's New England Clam Chowder	Seafood
320	11064	1998-05-01 00:00:00.000	Jack's New England Clam Chowder	Seafood
321	11065	1998-05-01 00:00:00.000	Nord-Ost Matjeshering	Seafood
322	11067	1998-05-04 00:00:00.000	Jack's New England Clam Chowder	Seafood
323	11071	1998-05-05 00:00:00.000	Konbu	Seafood
324	11072	1998-05-05 00:00:00.000	Jack's New England Clam Chowder	Seafood
325	11075	1998-05-06 00:00:00.000	Spegesild	Seafood
326	11077	1998-05-06 00:00:00.000	Ikura	Seafood
327	11077	1998-05-06 00:00:00.000	Konbu	Seafood
328	11077	1998-05-06 00:00:00.000	Jack's New England Clam Chowder	Seafood
329	11077	1998-05-06 00:00:00.000	Spegesild	Seafood
330	11077	1998-05-06 00:00:00.000	Röd Kaviar	Seafood

13. Fetch Customers who have not placed any order. Output: CustomerName.

Result contains 2 rows.

```
--Question 13 Asghar
select CompanyName as CustomerName
from Customers
Left Outer Join Orders on Customers.CustomerID = Orders.CustomerID
where OrderID is null
```

	CustomerName
1	FISSA Fabrica Inter. Salchichas S.A.
2	Paris spécialités

14. Select orders that contain products in either 'Meat/Poultry' or 'Dairy Products' categories. 3

Output: (Order ID) Result contains 423 row.

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```
-- Question 14 Asghar
select distinct [Order Details].OrderID
from Orders
Inner Join [Order Details] On Orders.OrderID = [Order Details].OrderID
Inner Join Products On [Order Details].ProductID = Products.ProductID
Inner Join Customers on Customers.CustomerID = Orders.CustomerID
Inner Join Categories on Products.CategoryID = Categories.CategoryID
where CategoryName = 'Dairy Products' or CategoryName = 'Meat/Poultry'
```

00 %

Results Messages

	OrderID
408	11045
409	11046
410	11049
411	11053
412	11054
413	11056
414	11058
415	11059
416	11060
417	11061
418	11062
419	11064
420	11065
421	11070
422	11073
423	11077

15. Find all possible combinations of employees and customer. Output: Employee Full Name, Customer Name. Note: The Full name is generated by concatenating First Name and Last Name. Result contains 819 rows

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```
-- Question 15 Asghar
SELECT
    e.FirstName + ' ' + e.LastName AS EmployeeFullName,
    c.ContactName AS CustomerName
FROM
    Employees e
CROSS JOIN
    Customers c;
```

100 %

Results Messages

	EmployeeFullName	CustomerName
804	Anne Dodsworth	Pascale Cartrain
805	Anne Dodsworth	Liz Nixon
806	Anne Dodsworth	Liu Wong
807	Anne Dodsworth	Karin Josephs
808	Anne Dodsworth	Miguel Angel Pa...
809	Anne Dodsworth	Anabela Doming...
810	Anne Dodsworth	Helvetius Nagy
811	Anne Dodsworth	Palle Ibsen
812	Anne Dodsworth	Mary Saveley
813	Anne Dodsworth	Paul Henriot
814	Anne Dodsworth	Rita Müller
815	Anne Dodsworth	Pirkko Koskitalo
816	Anne Dodsworth	Paula Parente
817	Anne Dodsworth	Karl Jablonski
818	Anne Dodsworth	Matti Karttunen
819	Anne Dodsworth	Zbyszek Piestrze...

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ALL OF MY CODE:

```
-- Syed Asghar Abbas Zaidi
-- Question 1
--select count(*)
--from Customers
--where Fax is null

-- Question 2
--select count(*)
--from Orders
--where year(OrderDate) = 1997

-- Question 3
--select count(*)
--from customers
--where ContactTitle = 'Sales Representative'

-- Question 4 Asghar
--select count(*)
--from [Order Details]
--where OrderID = 11070

-- Question 5 Asghar
--select count(*)
--from customers
--where country = 'UK' or country = 'USA'

-- Question 6 Asghar
--select sum(UnitsInStock)
--from Products

-- Question 7 Asghar
--select sum(UnitsInStock * UnitPrice) as [Total Stock's Value]
--from Products

-- Question 8 Asghar
--select count(*) as [Employees living in London]
--from Employees
--where City = 'London'
```

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```
-- Question 9 Asghar
--select *
--from Employees
--where TitleOfCourtesy = 'Ms.' or TitleOfCourtesy = 'Mrs.'

-- Question 10 Asghar
--select [Order Details].OrderID, OrderDate, ProductName
--from Orders
--Inner Join [Order Details] On Orders.OrderID = [Order Details].OrderID
--Inner Join Products On [Order Details].ProductID = Products.ProductID

-- Question 11 Asghar
--select [Order Details].OrderID, OrderDate, ProductName, Customers.CompanyName as
CustomerName
--from Orders
--Inner Join [Order Details] On Orders.OrderID = [Order Details].OrderID
--Inner Join Products On [Order Details].ProductID = Products.ProductID
--Inner Join Customers on Customers.CustomerID = Orders.CustomerID

-- Question 12 Asghar
--select [Order Details].OrderID, OrderDate, ProductName, CategoryName
--from Orders
--Inner Join [Order Details] On Orders.OrderID = [Order Details].OrderID
--Inner Join Products On [Order Details].ProductID = Products.ProductID
--Inner Join Customers on Customers.CustomerID = Orders.CustomerID
--Inner Join Categories on Products.CategoryID = Categories.CategoryID
--where CategoryName = 'Seafood'

--Question 13 Asghar
--select CompanyName as CustomerName
--from Customers
--Left Outer Join Orders on Customers.CustomerID = Orders.CustomerID
--where OrderID is null

-- Question 14 Asghar
--select distinct [Order Details].OrderID
--from Orders
--Inner Join [Order Details] On Orders.OrderID = [Order Details].OrderID
--Inner Join Products On [Order Details].ProductID = Products.ProductID
--Inner Join Customers on Customers.CustomerID = Orders.CustomerID
```

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```
--Inner Join Categories on Products.CategoryID = Categories.CategoryID  
--where CategoryName = 'Dairy Products' or CategoryName = 'Meat/Poultry'
```

```
-- Question 15 Asghar
```

```
SELECT
```

```
    e.FirstName + ' ' + e.LastName AS EmployeeFullName,  
    c.ContactName AS CustomerName
```

```
FROM
```

```
    Employees e
```

```
CROSS JOIN
```

```
    Customers c;
```