```
In [10]: %load_ext sql
```
The sql extension is already loaded. To reload it, use:
  %reload_ext sql

```
In [12]: %sql sqlite:///vbo.db
```

```
In [13]: %%sql
         SELECT*FROM Customers LIMIT 3;
```
 * sqlite:///vbo.db
Done.

Out[13]:
| CustomerID | CustomerName | ContactName | Address | City | PostalCode | Country |
|---|---|---|---|---|---|---|
| 1 | Alfreds Futterkiste | Maria Anders | Obere Str. 57 | Berlin | 12209 | Germany |
| 2 | Ana Trujillo Emparedados y helados | Ana Trujillo | Avda. de la Constitución 2222 | México D.F. | 5021 | Mexico |
| 3 | Antonio Moreno Taquería | Antonio Moreno | Mataderos 2312 | México D.F. | 5023 | Mexico |

```
In [ ]: #ORDERS TABLOSUNDAKİ MÜSTERİ SAYISI
```

```
In [16]: %%sql
         SELECT*FROM Orders  LIMIT 10;
```
 * sqlite:///vbo.db
Done.

Out[16]:
| OrderID | CustomerID | EmployeeID | OrderDate | ShipperID |
|---|---|---|---|---|
| 10248 | 90 | 5 | 4.07.1996 | 3 |
| 10249 | 81 | 6 | 5.07.1996 | 1 |
| 10250 | 34 | 4 | 8.07.1996 | 2 |
| 10251 | 84 | 3 | 8.07.1996 | 1 |
| 10252 | 76 | 4 | 9.07.1996 | 2 |
| 10253 | 34 | 3 | 10.07.1996 | 2 |
| 10254 | 14 | 5 | 11.07.1996 | 2 |
| 10255 | 68 | 9 | 12.07.1996 | 3 |
| 10256 | 88 | 3 | 15.07.1996 | 2 |
| 10257 | 35 | 4 | 16.07.1996 | 3 |

```
In [17]: %%sql
         SELECT COUNT(CustomerID) FROM Orders;
```
 * sqlite:///vbo.db
Done.

Out[17]:
| COUNT(CustomerID) |
|---|
| 196 |

```
In [ ]: #ORDER TABLOSUNDAKİ EŞŞİZ MÜŞTERİLER
```

```
In [19]: %%sql
         SELECT COUNT(DISTINcT CustomerID) FROM Orders;
```
 * sqlite:///vbo.db
Done.

Out[19]:
| COUNT(DISTINcT CustomerID) |
|---|
| 74 |

```
In [20]: ##CUSTOMERS TABLOSUNDA HANGİ ÜLKEDEN KAÇAR MÜŞTERİ VAR?
```

```
In [22]: %%sql
         SELECT COUNT(CustomerID) AS POİNT, Country FROM Customers GROUP BY Country;
```
 * sqlite:///vbo.db
Done.

| POİNT | Country |
|---:|:---:|
| 3 | Argentina |
| 2 | Austria |
| 2 | Belgium |
| 9 | Brazil |
| 3 | Canada |
| 2 | Denmark |
| 2 | Finland |
| 11 | France |
| 11 | Germany |
| 1 | Ireland |
| 3 | Italy |
| 5 | Mexico |
| 1 | Norway |
| 1 | Poland |
| 2 | Portugal |
| 5 | Spain |
| 2 | Sweden |
| 2 | Switzerland |
| 7 | UK |
| 13 | USA |
| 4 | Venezuela |

In [23]:
```sql
%%sql
SELECT*FROM Customers WHERE Country ="Brazil" OR Country = "USA";
```

 * sqlite:///vbo.db
Done.

| | CustomerID | CustomerName | ContactName | Address | City | PostalCode | Country |
|---|---|---|---|---|---|---|---|
| | 15 | Comércio Mineiro | Pedro Afonso | Av. dos Lusíadas, 23 | São Paulo | 05432-043 | Brazil |
| | 21 | Familia Arquibaldo | Aria Cruz | Rua Orós, 92 | São Paulo | 05442-030 | Brazil |
| | 31 | Gourmet Lanchonetes | André Fonseca | Av. Brasil, 442 | Campinas | 04876-786 | Brazil |
| | 32 | Great Lakes Food Market | Howard Snyder | 2732 Baker Blvd. | Eugene | 97403 | USA |
| | 34 | Hanari Carnes | Mario Pontes | Rua do Paço, 67 | Rio de Janeiro | 05454-876 | Brazil |
| | 36 | Hungry Coyote Import Store | Yoshi Latimer | City Center Plaza 516 Main St. | Elgin | 97827 | USA |
| | 43 | Lazy K Kountry Store | John Steel | 12 Orchestra Terrace | Walla Walla | 99362 | USA |
| | 45 | Let's Stop N Shop | Jaime Yorres | 87 Polk St. Suite 5 | San Francisco | 94117 | USA |
| | 48 | Lonesome Pine Restaurant | Fran Wilson | 89 Chiaroscuro Rd. | Portland | 97219 | USA |
| | 55 | Old World Delicatessen | Rene Phillips | 2743 Bering St. | Anchorage | 99508 | USA |
| | 61 | Que Delícia | Bernardo Batista | Rua da Panificadora, 12 | Rio de Janeiro | 02389-673 | Brazil |
| | 62 | Queen Cozinha | Lúcia Carvalho | Alameda dos Canàrios, 891 | São Paulo | 05487-020 | Brazil |
| | 65 | Rattlesnake Canyon Grocery | Paula Wilson | 2817 Milton Dr. | Albuquerque | 87110 | USA |
| | 67 | Ricardo Adocicados | Janete Limeira | Av. Copacabana, 267 | Rio de Janeiro | 02389-890 | Brazil |
| | 71 | Save-a-lot Markets | Jose Pavarotti | 187 Suffolk Ln. | Boise | 83720 | USA |
| | 75 | Split Rail Beer & Ale | Art Braunschweiger | P.O. Box 555 | Lander | 82520 | USA |
| | 77 | The Big Cheese | Liz Nixon | 89 Jefferson Way Suite 2 | Portland | 97201 | USA |
| | 78 | The Cracker Box | Liu Wong | 55 Grizzly Peak Rd. | Butte | 59801 | USA |
| | 81 | Tradição Hipermercados | Anabela Domingues | Av. Inês de Castro, 414 | São Paulo | 05634-030 | Brazil |
| | 82 | Trail's Head Gourmet Provisioners | Helvetius Nagy | 722 DaVinci Blvd. | Kirkland | 98034 | USA |
| | 88 | Wellington Importadora | Paula Parente | Rua do Mercado, 12 | Resende | 08737-363 | Brazil |
| | 89 | White Clover Markets | Karl Jablonski | 305 - 14th Ave. S. Suite 3B | Seattle | 98128 | USA |

In [ ]: *# Önce ülkeye sonra şehre göre group by işlemi yapıp bu kırılımda müşteri sayısını bulunuz.*

In [29]:
```sql
%%sql
SELECT COUNT(CustomerID) Country,City FROM Customers GROUP BY Country,
City;
```

 * sqlite:///vbo.db
Done.

Out[29]:

| Country | City |
|---|---|
| 3 | Buenos Aires |
| 1 | Graz |
| 1 | Salzburg |
| 1 | Bruxelles |
| 1 | Charleroi |
| 1 | Campinas |
| 1 | Resende |
| 3 | Rio de Janeiro |
| 4 | São Paulo |
| 1 | Montréal |
| 1 | Tsawassen |
| 1 | Vancouver |
| 1 | København |
| 1 | Århus |
| 1 | Helsinki |
| 1 | Oulu |
| 1 | Lille |

| | |
|---|---|
| 1 | Lyon |
| 1 | Marseille |
| 2 | Nantes |
| 2 | Paris |
| 1 | Reims |
| 1 | Strasbourg |
| 1 | Toulouse |
| 1 | Versailles |
| 1 | Aachen |
| 1 | Berlin |
| 1 | Brandenburg |
| 1 | Cunewalde |
| 1 | Frankfurt a.M. |
| 1 | Köln |
| 1 | Leipzig |
| 1 | Mannheim |
| 1 | München |
| 1 | Münster |
| 1 | Stuttgart |
| 1 | Cork |
| 1 | Bergamo |
| 1 | Reggio Emilia |
| 1 | Torino |
| 5 | México D.F. |
| 1 | Stavern |
| 1 | Walla |
| 2 | Lisboa |
| 1 | Barcelona |
| 3 | Madrid |
| 1 | Sevilla |
| 1 | Bräcke |
| 1 | Luleå |
| 1 | Bern |
| 1 | Genève |
| 1 | Cowes |
| 6 | London |
| 1 | Albuquerque |
| 1 | Anchorage |
| 1 | Boise |
| 1 | Butte |
| 1 | Elgin |
| 1 | Eugene |
| 1 | Kirkland |
| 1 | Lander |
| 2 | Portland |
| 1 | San Francisco |
| 1 | Seattle |
| 1 | Walla Walla |
| 1 | Barquisimeto |
| 1 | Caracas |
| 1 | I. de Margarita |

|   | 1 | San Cristóbal |
|---|---|---|

In [30]: `#Müşteriler adreslerinin herhangi bir yerinde "da " ifadesi geçen tüm adresler`

In [36]:
```sql
%%sql
SELECT*FROM Customers WHERE Address LIKE '%da%';
```

 * sqlite:///vbo.db
Done.

Out[36]:

| CustomerID | CustomerName | ContactName | Address | City | PostalCode | Country |
|---|---|---|---|---|---|---|
| 2 | Ana Trujillo Emparedados y helados | Ana Trujillo | Avda. de la Constitución 2222 | México D.F. | 5021 | Mexico |
| 13 | Centro comercial Moctezuma | Francisco Chang | Sierras de Granada 9993 | México D.F. | 5022 | Mexico |
| 15 | Comércio Mineiro | Pedro Afonso | Av. dos Lusíadas, 23 | São Paulo | 05432-043 | Brazil |
| 28 | Furia Bacalhau e Frutos do Mar | Lino Rodriguez | Jardim das rosas n. 32 | Lisboa | 1675 | Portugal |
| 54 | Océano Atlántico Ltda. | Yvonne Moncada | Ing. Gustavo Moncada 8585 Piso 20-A | Buenos Aires | 1010 | Argentina |
| 60 | Princesa Isabel Vinhoss | Isabel de Castro | Estrada da saúde n. 58 | Lisboa | 1756 | Portugal |
| 61 | Que Delícia | Bernardo Batista | Rua da Panificadora, 12 | Rio de Janeiro | 02389-673 | Brazil |
| 62 | Queen Cozinha | Lúcia Carvalho | Alameda dos Canàrios, 891 | São Paulo | 05487-020 | Brazil |
| 66 | Reggiani Caseifici | Maurizio Moroni | Strada Provinciale 124 | Reggio Emilia | 42100 | Italy |
| 80 | Tortuga Restaurante | Miguel Angel Paolino | Avda. Azteca 123 | México D.F. | 5033 | Mexico |
| 82 | Trail's Head Gourmet Provisioners | Helvetius Nagy | 722 DaVinci Blvd. | Kirkland | 98034 | USA |

In [ ]: `# Germany-Berlin'de yaşayan müşteri/müşterilerin isimleri nelerdir?`

In [46]:
```sql
%%sql
SELECT CustomerName FROM Customers  WHERE Country= "Germany" AND City = "Berlin";
```

 * sqlite:///vbo.db
Done.

Out[46]:

| CustomerName |
|---|
| Alfreds Futterkiste |

In [ ]: `# Canada'da yaşayıp isimlerinde "in" ifadesi geçen müşteri/müşterileri bulunuz.`

In [47]:
```sql
%%sql
SELECT*FROM Customers WHERE CustomerName LIKE "%in%";
```

 * sqlite:///vbo.db
Done.

| CustomerID | CustomerName | ContactName | Address | City | PostalCode | Country |
|---|---|---|---|---|---|---|
| 14 | Chop-suey Chinese | Yang Wang | Hauptstr. 29 | Bern | 3012 | Switzerland |
| 15 | Comércio Mineiro | Pedro Afonso | Av. dos Lusíadas, 23 | São Paulo | 05432-043 | Brazil |
| 16 | Consolidated Holdings | Elizabeth Brown | Berkeley Gardens 12 Brewery | London | WX1 6LT | UK |
| 22 | FISSA Fabrica Inter. Salchichas S.A. | Diego Roel | C/ Moralzarzal, 86 | Madrid | 28034 | Spain |
| 30 | Godos Cocina Típica | José Pedro Freyre | C/ Romero, 33 | Sevilla | 41101 | Spain |
| 38 | Island Trading | Helen Bennett | Garden House Crowther Way | Cowes | PO31 7PJ | UK |
| 42 | Laughing Bacchus Wine Cellars | Yoshi Tannamuri | 1900 Oak St. | Vancouver | V3F 2K1 | Canada |
| 47 | LINO-Delicateses | Felipe Izquierdo | Ave. 5 de Mayo Porlamar | I. de Margarita | 4980 | Venezuela |
| 48 | Lonesome Pine Restaurant | Fran Wilson | 89 Chiaroscuro Rd. | Portland | 97219 | USA |
| 49 | Magazzini Alimentari Riuniti | Giovanni Rovelli | Via Ludovico il Moro 22 | Bergamo | 24100 | Italy |
| 60 | Princesa Isabel Vinhoss | Isabel de Castro | Estrada da saúde n. 58 | Lisboa | 1756 | Portugal |
| 62 | Queen Cozinha | Lúcia Carvalho | Alameda dos Canàrios, 891 | São Paulo | 05487-020 | Brazil |
| 85 | Vins et alcools Chevalier | Paul Henriot | 59 rue de l'Abbaye | Reims | 51100 | France |
| 88 | Wellington Importadora | Paula Parente | Rua do Mercado, 12 | Resende | 08737-363 | Brazil |

In [ ]:
```
# Fiyatı 40 TL ile 90 TL arasında olan ürünlerin isimleri ve fiyatları nelerdir?
```

In [48]:
```sql
%%sql
SELECT ProductName, Price FROM Products WHERE Price<90 AND Price>40;
```

```
 * sqlite:///vbo.db
Done.
```

| ProductName | Price |
|---|---|
| Genen Shouyu | 43 |
| Carnarvon Tigers | 62 |
| Teatime Chocolate Biscuits | 43 |
| Sir Rodney's Marmalade | 81 |
| Guaraná Fantástica | 43 |
| Schoggi Schokolade | 43 |
| Rössle Sauerkraut | 45 |
| Geitost | 43 |
| Boston Crab Meat | 43 |
| Ipoh Coffee | 46 |
| Røgede sild | 43 |
| Zaanse koeken | 43 |
| Manjimup Dried Apples | 53 |
| Ravioli Angelo | 43 |
| Raclette Courdavault | 55 |
| Sirop d'érable | 43 |
| Tarte au sucre | 49 |
| Vegie-spread | 43 |
| Louisiana Fiery Hot Pepper Sauce | 43 |
| Scottish Longbreads | 45 |

In [ ]:
```
# Fiyatı 30 TL'den büyük olan ürünlerin isimlerini, fiyatlarını ve fiyatlarının karesini bulunuz ve tüm değişke

# urun ismi, urun_fiyati, ürün_fiyatinin_karesi
```

In [50]:
```sql
%%sql
SELECT ProductName AS ÜRÜN_İSMİ, Price AS Fiyat, Price*Price AS Karesi FROM Products WHERE Price>30;
```

```
 * sqlite:///vbo.db
Done.
```

| ÜRÜN_İSMİ | Fiyat | Karesi |
|---|---|---|
| Northwoods Cranberry Sauce | 40 | 1600 |
| Mishi Kobe Niku | 97 | 9409 |
| Ikura | 31 | 961 |
| Queso Manchego La Pastora | 38 | 1444 |
| Genen Shouyu | 43 | 1849 |
| Alice Mutton | 39 | 1521 |
| Carnarvon Tigers | 62 | 3844 |
| Teatime Chocolate Biscuits | 43 | 1849 |
| Sir Rodney's Marmalade | 81 | 6561 |
| Guaraná Fantástica | 43 | 1849 |
| Gumbär Gummibärchen | 31 | 961 |
| Schoggi Schokolade | 43 | 1849 |
| Rössle Sauerkraut | 45 | 2025 |
| Thüringer Rostbratwurst | 123 | 15129 |
| Gorgonzola Telino | 435 | 189225 |
| Mascarpone Fabioli | 32 | 1024 |
| Geitost | 43 | 1849 |
| Côte de Blaye | 263 | 69169 |
| Boston Crab Meat | 43 | 1849 |
| Ipoh Coffee | 46 | 2116 |
| Røgede sild | 43 | 1849 |
| Zaanse koeken | 43 | 1849 |
| Manjimup Dried Apples | 53 | 2809 |
| Perth Pasties | 32 | 1024 |
| Gnocchi di nonna Alice | 38 | 1444 |
| Ravioli Angelo | 43 | 1849 |
| Raclette Courdavault | 55 | 3025 |
| Camembert Pierrot | 34 | 1156 |
| Sirop d'érable | 43 | 1849 |
| Tarte au sucre | 49 | 2401 |
| Vegie-spread | 43 | 1849 |
| Wimmers gute Semmelknödel | 33 | 1089 |
| Louisiana Fiery Hot Pepper Sauce | 43 | 1849 |
| Scottish Longbreads | 45 | 2025 |
| Gudbrandsdalsost | 36 | 1296 |
| Mozzarella di Giovanni | 34 | 1156 |

In [ ]: `# Products tablosundaki CategoryID'lerin yani kategorilerin isimleri nelerdir?`

In [52]:
```sql
%%sql
SELECT ProductName, CategoryID FROM Products;
```

* sqlite:///vbo.db
Done.

Out[52]:

| ProductName | CategoryID |
|---|---|
| Chais | 1 |
| Chang | 1 |
| Aniseed Syrup | 2 |
| Chef Anton's Cajun Seasoning | 2 |
| Chef Anton's Gumbo Mix | 2 |
| Grandma's Boysenberry Spread | 2 |
| Uncle Bob's Organic Dried Pears | 7 |
| Northwoods Cranberry Sauce | 2 |

| | |
|---|---|
| Mishi Kobe Niku | 6 |
| Ikura | 8 |
| Queso Cabrales | 4 |
| Queso Manchego La Pastora | 4 |
| Konbu | 8 |
| Tofu | 7 |
| Genen Shouyu | 2 |
| Pavlova | 3 |
| Alice Mutton | 6 |
| Carnarvon Tigers | 8 |
| Teatime Chocolate Biscuits | 3 |
| Sir Rodney's Marmalade | 3 |
| Sir Rodney's Scones | 3 |
| Gustaf's Knäckebröd | 5 |
| Tunnbröd | 5 |
| Guaraná Fantástica | 1 |
| NuNuCa Nuß-Nougat-Creme | 3 |
| Gumbär Gummibärchen | 3 |
| Schoggi Schokolade | 3 |
| Rössle Sauerkraut | 7 |
| Thüringer Rostbratwurst | 6 |
| Nord-Ost Matjeshering | 8 |
| Gorgonzola Telino | 4 |
| Mascarpone Fabioli | 4 |
| Geitost | 4 |
| Sasquatch Ale | 1 |
| Steeleye Stout | 1 |
| Inlagd Sill | 8 |
| Gravad lax | 8 |
| Côte de Blaye | 1 |
| Chartreuse verte | 1 |
| Boston Crab Meat | 8 |
| Jack's New England Clam Chowder | 8 |
| Singaporean Hokkien Fried Mee | 5 |
| Ipoh Coffee | 1 |
| Gula Malacca | 2 |
| Røgede sild | 8 |
| Spegesild | 8 |
| Zaanse koeken | 3 |
| Chocolade | 3 |
| Maxilaku | 3 |
| Valkoinen suklaa | 3 |
| Manjimup Dried Apples | 7 |
| Filo Mix | 5 |
| Perth Pasties | 6 |
| Tourtière | 6 |
| Pâté chinois | 6 |
| Gnocchi di nonna Alice | 5 |
| Ravioli Angelo | 5 |
| Escargots de Bourgogne | 8 |
| Raclette Courdavault | 4 |

| | |
|---|---|
| Camembert Pierrot | 4 |
| Sirop d'érable | 2 |
| Tarte au sucre | 3 |
| Vegie-spread | 2 |
| Wimmers gute Semmelknödel | 5 |
| Louisiana Fiery Hot Pepper Sauce | 2 |
| Louisiana Hot Spiced Okra | 2 |
| Laughing Lumberjack Lager | 1 |
| Scottish Longbreads | 3 |
| Gudbrandsdalsost | 4 |
| Outback Lager | 1 |
| Fløtemysost | 4 |
| Mozzarella di Giovanni | 4 |
| Röd Kaviar | 8 |
| Longlife Tofu | 7 |
| Rhönbräu Klosterbier | 1 |
| Lakkalikööri | 1 |
| Original Frankfurter grüne Soße | 2 |

In [53]:
```sql
%%sql
SELECT *
FROM Products
LEFT JOIN Categories on Products.CategoryID = Categories.CategoryID;
```

* sqlite:///vbo.db
Done.

Out[53]:

| ProductID | ProductName | SupplierID | CategoryID | Unit | Price | CategoryID_1 | CategoryName | Description |
|---|---|---|---|---|---|---|---|---|
| 1 | Chais | 1 | 1 | 10 boxes x 20 bags | 18 | 1 | Beverages | Soft drinks, coffees, teas, beers, and ales |
| 2 | Chang | 1 | 1 | 24 - 12 oz bottles | 19 | 1 | Beverages | Soft drinks, coffees, teas, beers, and ales |
| 3 | Aniseed Syrup | 1 | 2 | 12 - 550 ml bottles | 10 | 2 | Condiments | Sweet and savory sauces, relishes, spreads, and seasonings |
| 4 | Chef Anton's Cajun Seasoning | 2 | 2 | 48 - 6 oz jars | 22 | 2 | Condiments | Sweet and savory sauces, relishes, spreads, and seasonings |
| 5 | Chef Anton's Gumbo Mix | 2 | 2 | 36 boxes | 21 | 2 | Condiments | Sweet and savory sauces, relishes, spreads, and seasonings |
| 6 | Grandma's Boysenberry Spread | 3 | 2 | 12 - 8 oz jars | 25 | 2 | Condiments | Sweet and savory sauces, relishes, spreads, and seasonings |
| 7 | Uncle Bob's Organic Dried Pears | 3 | 7 | 12 - 1 lb pkgs. | 30 | 7 | Produce | Dried fruit and bean curd |
| 8 | Northwoods Cranberry Sauce | 3 | 2 | 12 - 12 oz jars | 40 | 2 | Condiments | Sweet and savory sauces, relishes, spreads, and seasonings |
| 9 | Mishi Kobe Niku | 4 | 6 | 18 - 500 g pkgs. | 97 | 6 | Meat/Poultry | Prepared meats |
| 10 | Ikura | 4 | 8 | 12 - 200 ml jars | 31 | 8 | Seafood | Seaweed and fish |
| 11 | Queso Cabrales | 5 | 4 | 1 kg pkg. | 21 | 4 | Dairy Products | Cheeses |
| 12 | Queso Manchego La Pastora | 5 | 4 | 10 - 500 g pkgs. | 38 | 4 | Dairy Products | Cheeses |
| 13 | Konbu | 6 | 8 | 2 kg box | 6 | 8 | Seafood | Seaweed and fish |
| 14 | Tofu | 6 | 7 | 40 - 100 g pkgs. | 23 | 7 | Produce | Dried fruit and bean curd |
| | | | | | | | | Sweet and savory |

| ID | Product Name | | | Quantity Per Unit | | | Category | Description |
|---|---|---|---|---|---|---|---|---|
| 15 | Genen Shouyu | 6 | 2 | 24 - 250 ml bottles | 43 | 2 | Condiments | Sweet and savory sauces, relishes, spreads, and seasonings |
| 16 | Pavlova | 7 | 3 | 32 - 500 g boxes | 17 | 3 | Confections | Desserts, candies, and sweet breads |
| 17 | Alice Mutton | 7 | 6 | 20 - 1 kg tins | 39 | 6 | Meat/Poultry | Prepared meats |
| 18 | Carnarvon Tigers | 7 | 8 | 16 kg pkg. | 62 | 8 | Seafood | Seaweed and fish |
| 19 | Teatime Chocolate Biscuits | 8 | 3 | 10 boxes x 12 pieces | 43 | 3 | Confections | Desserts, candies, and sweet breads |
| 20 | Sir Rodney's Marmalade | 8 | 3 | 30 gift boxes | 81 | 3 | Confections | Desserts, candies, and sweet breads |
| 21 | Sir Rodney's Scones | 8 | 3 | 24 pkgs. x 4 pieces | 10 | 3 | Confections | Desserts, candies, and sweet breads |
| 22 | Gustaf's Knäckebröd | 9 | 5 | 24 - 500 g pkgs. | 21 | 5 | Grains/Cereals | Breads, crackers, pasta, and cereal |
| 23 | Tunnbröd | 9 | 5 | 12 - 250 g pkgs. | 9 | 5 | Grains/Cereals | Breads, crackers, pasta, and cereal |
| 24 | Guaraná Fantástica | 10 | 1 | 12 - 355 ml cans | 43 | 1 | Beverages | Soft drinks, coffees, teas, beers, and ales |
| 25 | NuNuCa Nuß-Nougat-Creme | 11 | 3 | 20 - 450 g glasses | 14 | 3 | Confections | Desserts, candies, and sweet breads |
| 26 | Gumbär Gummibärchen | 11 | 3 | 100 - 250 g bags | 31 | 3 | Confections | Desserts, candies, and sweet breads |
| 27 | Schoggi Schokolade | 11 | 3 | 100 - 100 g pieces | 43 | 3 | Confections | Desserts, candies, and sweet breads |
| 28 | Rössle Sauerkraut | 12 | 7 | 25 - 825 g cans | 45 | 7 | Produce | Dried fruit and bean curd |
| 29 | Thüringer Rostbratwurst | 12 | 6 | 50 bags x 30 sausgs. | 123 | 6 | Meat/Poultry | Prepared meats |
| 30 | Nord-Ost Matjeshering | 13 | 8 | 10 - 200 g glasses | 25 | 8 | Seafood | Seaweed and fish |
| 31 | Gorgonzola Telino | 14 | 4 | 12 - 100 g pkgs | 435 | 4 | Dairy Products | Cheeses |
| 32 | Mascarpone Fabioli | 14 | 4 | 24 - 200 g pkgs. | 32 | 4 | Dairy Products | Cheeses |
| 33 | Geitost | 15 | 4 | 500 g | 43 | 4 | Dairy Products | Cheeses |
| 34 | Sasquatch Ale | 16 | 1 | 24 - 12 oz bottles | 14 | 1 | Beverages | Soft drinks, coffees, teas, beers, and ales |
| 35 | Steeleye Stout | 16 | 1 | 24 - 12 oz bottles | 18 | 1 | Beverages | Soft drinks, coffees, teas, beers, and ales |
| 36 | Inlagd Sill | 17 | 8 | 24 - 250 g jars | 19 | 8 | Seafood | Seaweed and fish |
| 37 | Gravad lax | 17 | 8 | 12 - 500 g pkgs. | 26 | 8 | Seafood | Seaweed and fish |
| 38 | Côte de Blaye | 18 | 1 | 12 - 75 cl bottles | 263 | 1 | Beverages | Soft drinks, coffees, teas, beers, and ales |
| 39 | Chartreuse verte | 18 | 1 | 750 cc per bottle | 18 | 1 | Beverages | Soft drinks, coffees, teas, beers, and ales |
| 40 | Boston Crab Meat | 19 | 8 | 24 - 4 oz tins | 43 | 8 | Seafood | Seaweed and fish |
| 41 | Jack's New England Clam Chowder | 19 | 8 | 12 - 12 oz cans | 23 | 8 | Seafood | Seaweed and fish |
| 42 | Singaporean Hokkien Fried Mee | 20 | 5 | 32 - 1 kg pkgs. | 14 | 5 | Grains/Cereals | Breads, crackers, pasta, and cereal |
| 43 | Ipoh Coffee | 20 | 1 | 16 - 500 g tins | 46 | 1 | Beverages | Soft drinks, coffees, teas, beers, and ales |
| 44 | Gula Malacca | 20 | 2 | 20 - 2 kg bags | 19 | 2 | Condiments | Sweet and savory sauces, relishes, spreads, and seasonings |
| 45 | Røgede sild | 21 | 8 | 1k pkg. | 43 | 8 | Seafood | Seaweed and fish |
| 46 | Spegesild | 21 | 8 | 4 - 450 g glasses | 12 | 8 | Seafood | Seaweed and fish |
| 47 | Zaanse koeken | 22 | 3 | 10 - 4 oz boxes | 43 | 3 | Confections | Desserts, candies, and sweet breads |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 48 | Chocolade | 22 | 3 | 10 pkgs. | 27 | 3 | Confections | Desserts, candies, and sweet breads |
| 49 | Maxilaku | 23 | 3 | 24 - 50 g pkgs. | 20 | 3 | Confections | Desserts, candies, and sweet breads |
| 50 | Valkoinen suklaa | 23 | 3 | 12 - 100 g bars | 16 | 3 | Confections | Desserts, candies, and sweet breads |
| 51 | Manjimup Dried Apples | 24 | 7 | 50 - 300 g pkgs. | 53 | 7 | Produce | Dried fruit and bean curd |
| 52 | Filo Mix | 24 | 5 | 16 - 2 kg boxes | 7 | 5 | Grains/Cereals | Breads, crackers, pasta, and cereal |
| 53 | Perth Pasties | 24 | 6 | 48 pieces | 32 | 6 | Meat/Poultry | Prepared meats |
| 54 | Tourtière | 25 | 6 | 16 pies | 16 | 6 | Meat/Poultry | Prepared meats |
| 55 | Pâté chinois | 25 | 6 | 24 boxes x 2 pies | 24 | 6 | Meat/Poultry | Prepared meats |
| 56 | Gnocchi di nonna Alice | 26 | 5 | 24 - 250 g pkgs. | 38 | 5 | Grains/Cereals | Breads, crackers, pasta, and cereal |
| 57 | Ravioli Angelo | 26 | 5 | 24 - 250 g pkgs. | 43 | 5 | Grains/Cereals | Breads, crackers, pasta, and cereal |
| 58 | Escargots de Bourgogne | 27 | 8 | 24 pieces | 13 | 8 | Seafood | Seaweed and fish |
| 59 | Raclette Courdavault | 28 | 4 | 5 kg pkg. | 55 | 4 | Dairy Products | Cheeses |
| 60 | Camembert Pierrot | 28 | 4 | 15 - 300 g rounds | 34 | 4 | Dairy Products | Cheeses |
| 61 | Sirop d'érable | 29 | 2 | 24 - 500 ml bottles | 43 | 2 | Condiments | Sweet and savory sauces, relishes, spreads, and seasonings |
| 62 | Tarte au sucre | 29 | 3 | 48 pies | 49 | 3 | Confections | Desserts, candies, and sweet breads |
| 63 | Vegie-spread | 7 | 2 | 15 - 625 g jars | 43 | 2 | Condiments | Sweet and savory sauces, relishes, spreads, and seasonings |
| 64 | Wimmers gute Semmelknödel | 12 | 5 | 20 bags x 4 pieces | 33 | 5 | Grains/Cereals | Breads, crackers, pasta, and cereal |
| 65 | Louisiana Fiery Hot Pepper Sauce | 2 | 2 | 32 - 8 oz bottles | 43 | 2 | Condiments | Sweet and savory sauces, relishes, spreads, and seasonings |
| 66 | Louisiana Hot Spiced Okra | 2 | 2 | 24 - 8 oz jars | 17 | 2 | Condiments | Sweet and savory sauces, relishes, spreads, and seasonings |
| 67 | Laughing Lumberjack Lager | 16 | 1 | 24 - 12 oz bottles | 14 | 1 | Beverages | Soft drinks, coffees, teas, beers, and ales |
| 68 | Scottish Longbreads | 8 | 3 | 10 boxes x 8 pieces | 45 | 3 | Confections | Desserts, candies, and sweet breads |
| 69 | Gudbrandsdalsost | 15 | 4 | 10 kg pkg. | 36 | 4 | Dairy Products | Cheeses |
| 70 | Outback Lager | 7 | 1 | 24 - 355 ml bottles | 15 | 1 | Beverages | Soft drinks, coffees, teas, beers, and ales |
| 71 | Fløtemysost | 15 | 4 | 10 - 500 g pkgs. | 21 | 4 | Dairy Products | Cheeses |
| 72 | Mozzarella di Giovanni | 14 | 4 | 24 - 200 g pkgs. | 34 | 4 | Dairy Products | Cheeses |
| 73 | Röd Kaviar | 17 | 8 | 24 - 150 g jars | 15 | 8 | Seafood | Seaweed and fish |
| 74 | Longlife Tofu | 4 | 7 | 5 kg pkg. | 10 | 7 | Produce | Dried fruit and bean curd |
| 75 | Rhönbräu Klosterbier | 12 | 1 | 24 - 0.5 l bottles | 27 | 1 | Beverages | Soft drinks, coffees, teas, beers, and ales |
| 76 | Lakkalikööri | 23 | 1 | 500 ml | 18 | 1 | Beverages | Soft drinks, coffees, teas, beers, and ales |
| 77 | Original Frankfurter grüne Soße | 12 | 2 | 12 boxes | 13 | 2 | Condiments | Sweet and savory sauces, relishes, spreads, and seasonings |

In [54]:
```python
# beverages ürün kategorisindeki ürünlerin fiyat ortalaması nedir?
```

In [57]:
```sql
%%sql
SELECT AVG(Price) FROM Products WHERE CategoryID =1;
```
 * sqlite:///vbo.db
Done.

Out[57]:

| AVG(Price) |
| --- |
| 42.75 |

In [58]:
```sql
%%sql
SELECT AVG(Price)
FROM Products
LEFT JOIN Categories on Products.CategoryID = categories.CategoryID
WHERE CategoryName = 'Beverages';
```
 * sqlite:///vbo.db
Done.

Out[58]:

| AVG(Price) |
| --- |
| 42.75 |

In [59]:
```python
# USA'de yaşayan müşterilerin kazandırdığı toplam kazancı bulunuz.
```

In [61]:
```sql
%%sql
SELECT SUM(p.Price)
FROM Orders o
LEFT JOIN OrderDetails od on o.OrderID = od.OrderID
LEFT JOIN Products p on od.ProductID = p.ProductID
LEFT JOIN Customers cu on o.CustomerID = cu.CustomerID where cu.Country = 'USA';
```
 * sqlite:///vbo.db
Done.

Out[61]:

| SUM(p.Price) |
| --- |
| 3762 |

In [62]:
```python
# Products tablosundaki CategoryID'lerin isimlerini bulunuz ve sonrasında kategori başına ortalama ürün fiyatı
```

In [ ]:

In [65]:
```sql
%%sql
SELECT AVG(Price), CategoryName
FROM Products
LEFT JOIN Categories on Products.CategoryID = Categories.CategoryID
GROUP BY CategoryName;
```
 * sqlite:///vbo.db
Done.

Out[65]:

| AVG(Price) | CategoryName |
| --- | --- |
| 42.75 | Beverages |
| 28.25 | Condiments |
| 33.76923076923077 | Confections |
| 74.9 | Dairy Products |
| 23.571428571428573 | Grains/Cereals |
| 55.166666666666664 | Meat/Poultry |
| 32.2 | Produce |
| 26.5 | Seafood |

In [66]:
```sql
%%sql
SELECT em.FirstName, SUM(p.Price) toplam_satis
FROM Orders o
LEFT JOIN OrderDetails od on o.OrderID = od.OrderID
LEFT JOIN Products p on od.ProductID = p.ProductID
LEFT JOIN Employees em on o.EmployeeID = em.EmployeeID
GROUP BY o.EmployeeID
ORDER BY toplam_satis DESC;
```
 * sqlite:///vbo.db
Done.

Out[66]:

| FirstName | toplam_satis |
|---|---|
| Margaret | 5515 |
| Nancy | 4353 |
| Janet | 3048 |
| Michael | 2981 |
| Laura | 2380 |
| Robert | 1852 |
| Andrew | 1550 |
| Steven | 1408 |
| Anne | 520 |

In [ ]:
```
# Germany'dan verilen siparişlerin kategorilerine göre ortalama fiyatları nelerdir?
```

In [67]:
```sql
%%sql
SELECT ca.CategoryName, AVG(p.Price)
FROM Orders o
LEFT JOIN OrderDetails od on o.OrderID = od.OrderID
LEFT JOIN Products p on od.ProductID = p.ProductID
LEFT JOIN Categories ca on p.CategoryID = ca.CategoryID
LEFT JOIN Customers cu on o.CustomerID = cu.CustomerID
WHERE cu.Country = 'Germany' GROUP BY CategoryName;
```
* sqlite:///vbo.db
Done.

Out[67]:

| CategoryName | AVG(p.Price) |
|---|---|
| Beverages | 20.5 |
| Condiments | 34.0 |
| Confections | 40.0 |
| Dairy Products | 151.64705882352942 |
| Grains/Cereals | 22.142857142857142 |
| Meat/Poultry | 30.2 |
| Produce | 30.75 |
| Seafood | 27.09090909090909 |

In [68]:
```
# Almanya ya da USA'den verilen siparişlerin kategorilerine göre ortalama fiyatları nelerdir?
```

In [69]:
```sql
%%sql
SELECT ca.CategoryName, AVG(p.Price)
FROM Orders o
LEFT JOIN OrderDetails od on o.OrderID = od.OrderID
LEFT JOIN Products p on od.ProductID = p.ProductID
LEFT JOIN Categories ca on p.CategoryID = ca.CategoryID
LEFT JOIN Customers cu on o.CustomerID = cu.CustomerID
WHERE cu.Country = 'Germany' OR cu.Country = 'USA' GROUP BY CategoryName;
```
* sqlite:///vbo.db
Done.

Out[69]:

| CategoryName | AVG(p.Price) |
|---|---|
| Beverages | 29.88888888888889 |
| Condiments | 34.72727272727273 |
| Confections | 39.92307692307692 |
| Dairy Products | 131.75862068965517 |
| Grains/Cereals | 29.846153846153847 |
| Meat/Poultry | 46.75 |
| Produce | 28.625 |
| Seafood | 25.6 |

In [70]:
```
# Haziran Temmuz Ağustos aylarında verilen siparişlerin ortalama fiyatı nedir?
```

In [72]:
```sql
%%sql
SELECT AVG(Products.Price)
FROM Products
LEFT JOIN OrderDetails on OrderDetails.ProductID = products.ProductID
LEFT JOIN Orders on OrderDetails.OrderID = Orders.OrderID
```

```sql
WHERE OrderDate like '%07%' or OrderDate like '%08%' or OrderDate like '%09%';
```

 * sqlite:///vbo.db
Done.

Out[72]:

| AVG(Products.Price) |
| --- |
| 39.71891891891892 |

In [74]: *# Müşterilerin 1997 yılına ait siparişlerinin maksimum miktarlarını bulup müşterilerin isimleri ile birlikte büy*

In [75]:
```sql
%%sql
SELECT CustomerName, MAX(Price) maks
FROM Products
LEFT JOIN OrderDetails on Products.ProductID = OrderDetails.ProductID
LEFT JOIN Orders on OrderDetails.OrderID = Orders.OrderID
LEFT JOIN Customers on Customers.CustomerID = Orders.CustomerID
WHERE OrderDate like '%1997%'
GROUP BY CustomerName ORDER BY maks DESC;
```

 * sqlite:///vbo.db
Done.

Out[75]:

| CustomerName | maks |
| --- | --- |
| Gourmet Lanchonetes | 435 |
| Simons bistro | 263 |
| Mère Paillarde | 263 |
| Save-a-lot Markets | 123 |
| Eastern Connection | 123 |
| Wellington Importadora | 97 |
| Ernst Handel | 55 |
| Bottom-Dollar Marketse | 55 |
| La maison d'Asie | 49 |
| Folies gourmandes | 49 |
| Reggiani Caseifici | 45 |
| Queen Cozinha | 45 |
| Wartian Herkku | 43 |
| Toms Spezialitäten | 43 |
| Rattlesnake Canyon Grocery | 43 |
| Que Delícia | 43 |
| QUICK-Stop | 43 |
| Old World Delicatessen | 43 |
| Hungry Owl All-Night Grocers | 43 |
| Hungry Coyote Import Store | 43 |
| Familia Arquibaldo | 43 |
| Princesa Isabel Vinhoss | 38 |
| Galería del gastrónomo | 38 |
| Blondel père et fils | 38 |
| Richter Supermarkt | 36 |
| Ottilies Käseladen | 36 |
| Consolidated Holdings | 34 |
| Split Rail Beer & Ale | 31 |
| Magazzini Alimentari Riuniti | 31 |
| Franchi S.p.A. | 31 |
| Piccolo und mehr | 23 |
| Océano Atlántico Ltda. | 23 |
| Folk och fä HB | 21 |
| LINO-Delicateses | 10 |

In [76]: *# Sipariş yılı 1997 olan siparişleri alan çalışanları sipariş alma sayılarına göre sıralayınız.*

In [77]:
```sql
%%sql
```

```sql
SELECT COUNT(*) n, em.FirstName
FROM Orders
LEFT JOIN Employees em on Orders.EmployeeID = em.EmployeeID
WHERE OrderDate like '%1997%'
GROUP BY em.FirstName
ORDER by n DESC;
```

 * sqlite:///vbo.db
Done.

Out[77]:

| n | FirstName |
|---|---|
| 13 | Janet |
| 9 | Margaret |
| 8 | Laura |
| 4 | Andrew |
| 3 | Robert |
| 3 | Nancy |
| 3 | Michael |
| 1 | Anne |

In [ ]: