|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **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. | 05021 | Mexico |
| 3 | Antonio Moreno Taquería | Antonio Moreno | Mataderos 2312 | México D.F. | 05023 | Mexico |
| 4 | Around the Horn | Thomas Hardy | 120 Hanover Sq. | London | WA1 1DP | UK |
| 5 | Berglunds snabbköp | Christina Berglund | Berguvsvägen 8 | Luleå | S-958 22 | Sweden |

1. SELECT CustomerName, City FROM Customers; Result: CustomerName, City row
2. SELECT DISTINCT Country FROM Customers; Result: only country row
3. SELECT \* FROM Customers Result: country row WHERE Country='Mexico'; WHERE Country='Mexico';
4. SELECT \* FROM Customers WHERE Country='Germany' AND City='Berlin';

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CustomerID** | **CustomerName** | **ContactName** | **Address** | **City** | **PostalCode** | **Country** |
| 1 | Alfreds Futterkiste | Maria Anders | Obere Str. 57 | Berlin | 12209 | Germany |

1. SELECT \* FROM Customers WHERE City='Berlin' OR City='München';

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CustomerID** | **CustomerName** | **ContactName** | **Address** | **City** | **PostalCode** | **Country** |
| 1 | Alfreds Futterkiste | Maria Anders | Obere Str. 57 | Berlin | 12209 | Germany |
| 25 | Frankenversand | Peter Franken | Berliner Platz 43 | München | 80805 | Germany |

1. SELECT \* FROM Customers WHERE NOT Country='Germany'; Result: all row without Germany
2. SELECT \* FROM Customers ORDER BY Country;

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CustomerID** | **CustomerName** | **ContactName** | **Address** | **City** | **PostalCode** | **Country** |
| 64 | Rancho grande | Sergio Gutiérrez | Av. del Libertador 900 | Buenos Aires | 1010 | Argentina |
| 54 | Océano Atlántico Ltda. | Yvonne Moncada | Ing. Gustavo Moncada | Buenos Aires | 1010 | Argentina |
| 50 | Maison Dewey | Catherine Dewey | Rue Joseph-Bens 532 | Bruxelles | B-1180 | Belgium |

1. INSERT INTO Customers (CustomerName, ContactName, Address, City, PostalCode, Country)

VALUES ('Cardinal','Tom B. Erichsen','Skagen 21','Stavanger','4006','Norway');

1. SELECT CustomerName, ContactName, Address FROM Customers WHERE Address IS NULL;

The IS NULL operator is used to test for empty values (NULL values).

1. UPDATE Customers SET ContactName = 'Alfred Schmidt', City= 'Frankfurt' WHERE CustomerID = 1;
2. DELETE FROM Customers WHERE CustomerName='Alfreds Futterkiste';

1. SELECT TOP 3 \* FROM Customers;

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **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. | 05021 | Mexico |
| 3 | Antonio Moreno Taquería | Antonio Moreno | Mataderos 2312 | México D.F. | 05023 | Mexico |

1. SELECT \* FROM Customers LIMIT 3; highest 3 rows are selected

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ProductID** | **ProductName** | **SupplierID** | **CategoryID** | **Unit** | **Price** |
| 1 | Chais | 1 | 1 | 10 boxes x 20 bags | 18 |
| 2 | Chang | 1 | 1 | 24 - 12 oz bottles | 19 |
| 3 | Aniseed Syrup | 1 | 2 | 12 - 550 ml bottles | 10 |
| 4 | Chef Anton's Cajun Seasoning | 2 | 2 | 48 - 6 oz jars | 22 |
| 5 | Chef Anton's Gumbo Mix | 2 | 2 | 36 boxes | 21.35 |

1. SELECT MIN(Price) AS SmallestPrice FROM Products; Result: 2.5
2. SELECT MAX(Price) AS LargestPrice FROM Products; Result: 263.5
3. SELECT COUNT(ProductID) FROM Products; Result: 77
4. SELECT AVG(Price) FROM Products; Result: 28.8664
5. SELECT SUM(Quantity) FROM OrderDetails; Result: 12743
6. SELECT \* FROM Customers WHERE City LIKE 'ber%';

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CustomerID** | **CustomerName** | **ContactName** | **Address** | **City** | **PostalCode** | **Country** |
| 1 | Alfreds Futterkiste | Maria Anders | Obere Str. 57 | Berlin | 12209 | Germany |
| 14 | Chop-suey Chinese | Yang Wang | Hauptstr. 29 | Bern | 3012 | Switzerland |
| 49 | Magazzini Alimentari Riuniti | Giovanni Rovelli | Via Ludovico il Moro 22 | Bergamo | 24100 | Italy |

1. SELECT \* FROM Customers WHERE Country IN ('Germany', 'France', 'UK');

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CustomerID** | **CustomerName** | **ContactName** | **Address** | **City** | **PostalCode** | **Country** |
| 1 | Alfreds Futterkiste | Maria Anders | Obere Str. 57 | Berlin | 12209 | Germany |
| 4 | Around the Horn | Thomas Hardy | 120 Hanover | London | WA1 1DP | UK |
| 6 | Blauer See Delikatessen | Hanna Moos | Forsterstr. | Mannheim | 68306 | Germany |
| 7 | Blondel père et fils | Frédérique Citeaux | 24, place Kléber | Strasbourg | 67000 | France |

1. SELECT \* FROM Customers WHERE Country NOT IN ('Germany', 'France', 'UK');
2. SELECT \* FROM Products WHERE Price BETWEEN 10 AND 20 AND NOT CategoryID IN (1,2,3);

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ProductID** | **ProductName** | **SupplierID** | **CategoryID** | **Unit** | **Price** |
| 31 | Gorgonzola Telino | 14 | 4 | 12 - 100 g pkgs | 12.5 |
| 36 | Inlagd Sill | 17 | 8 | 24 - 250 g jars | 19 |
| 40 | Boston Crab Meat | 19 | 8 | 24 - 4 oz tins | 18.4 |
| 42 | Singaporean Hokkien Fried Mee | 20 | 5 | 32 - 1 kg pkgs. | 14 |

1. SELECT \* FROM Products WHERE ProductName BETWEEN 'Carnarvon Tigers' AND 'Mozzarella di Giovanni' ORDER BY ProductName;

Let's look at a selection from the "Orders" table:

|  |  |  |
| --- | --- | --- |
| **OrderID** | **CustomerID** | **OrderDate** |
| 10308 | 2 | 1996-09-18 |
| 10309 | 37 | 1996-09-19 |
| 10310 | 77 | 1996-09-20 |

Then, look at a selection from the "Customers" table:

|  |  |  |  |
| --- | --- | --- | --- |
| **CustomerID** | **CustomerName** | **ContactName** | **Country** |
| 1 | Alfreds Futterkiste | Maria Anders | Germany |
| 2 | Ana Trujillo Emparedados y helados | Ana Trujillo | Mexico |
| 3 | Antonio Moreno Taquería | Antonio Moreno | Mexico |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **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. | 05021 | Mexico |
| 3 | Antonio Moreno Taquería | Antonio Moreno | Mataderos 2312 | México D.F. | 05023 | Mexico |

1. SELECT COUNT(CustomerID), Country FROM Customers GROUP BY Country;

|  |  |
| --- | --- |
| **Expr1000** | **Country** |
| 3 | Argentina |
| 2 | Austria |
| 2 | Belgium |
| 9 | Brazil |

1. SELECT COUNT(CustomerID), Country FROM Customers GROUP BY Country //group by –work in low to high and showing the one value if another value contain.

HAVING COUNT(CustomerID) > 5 ORDER BY COUNT(CustomerID) DESC;

|  |  |
| --- | --- |
| **Expr1000** | **Country** |
| 13 | USA |
| 11 | Germany |
| 11 | France |
| 9 | Brazil |
| 7 | UK |

Below is a selection from the "Products" table in the Northwind sample database:

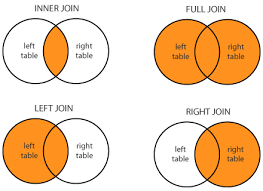
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ProductID** | **ProductName** | **SupplierID** | **CategoryID** | **Unit** | **Price** |
| 1 | Chais | 1 | 1 | 10 boxes x 20 bags | 18 |
| 2 | Chang | 1 | 1 | 24 - 12 oz bottles | 19 |
| 3 | Aniseed Syrup | 1 | 2 | 12 - 550 ml bottles | 10 |
| 4 | Chef Anton's Cajun Seasoning | 2 | 2 | 48 - 6 oz jars | 22 |
| 5 | Chef Anton's Gumbo Mix | 2 | 2 | 36 boxes | 21.35 |

And a selection from the "Suppliers" table:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **SupplierID** | **SupplierName** | **ContactName** | **Address** | **City** | **PostalCode** | **Country** |
| 1 | Exotic Liquid | Charlotte Cooper | 49 Gilbert St. | London | EC1 4SD | UK |
| 2 | New Orleans Cajun Delights | Shelley Burke | P.O. Box 78934 | New Orleans | 70117 | USA |
| 3 | Grandma Kelly's Homestead | Regina Murphy | 707 Oxford Rd. | Ann Arbor | 48104 | USA |
| 4 | Tokyo Traders | Yoshi Nagase | 9-8 Sekimai Musashino-shi | Tokyo | 100 | Japan |

1. SELECT SupplierName FROM Suppliers WHERE EXISTS (SELECT ProductName FROM Products WHERE Products.SupplierID = Suppliers.supplierID AND Price < 20);

|  |
| --- |
| **SupplierName** |
| Exotic Liquid |
| New Orleans Cajun Delights |
| Tokyo Traders |
|  |
| Mayumi's |



| **supplier\_id** | **supplier\_name** | **city** | **state** |
| --- | --- | --- | --- |
| 100 | Microsoft | Redmond | Washington |
| 200 | Google | Mountain View | California |
| 300 | Oracle | Redwood City | California |
| 400 | Kimberly-Clark | Irving | Texas |
| 500 | Tyson Foods | Springdale | Arkansas |
| 600 | SC Johnson | Racine | Wisconsin |
| 700 | Dole Food Company | Westlake Village | California |
| 800 | Flowers Foods | Thomasville | Georgia |
| 900 | Electronic Arts | Redwood City | California |

Let's find all of the unique states in the *suppliers* table. Enter the following SQL statement:

[Try It](https://www.techonthenet.com/sql/distinct_try_sql.php)

SELECT DISTINCT state

FROM suppliers

ORDER BY state;

There will be 6 records selected. These are the results that you should see:

| **state** |
| --- |
| Arkansas |
| California |
| Georgia |
| Texas |
| Washington |
| Wisconsin |

This example would return all unique *state* values from the *suppliers* table and remove any duplicates from the result set. As you can see, the *state* of California only appears once in the result set instead of four times.

to use the SQL DISTINCT clause to remove duplicates from more than one field in a SELECT statement.

27. Query the average population for all cities in **CITY**, rounded down to the nearest integer.

select Round(avg(population)) from city;

**SQL query to find second highest salary?**

SELECT name, MAX(salary) AS salary

FROM employee

WHERE salary < (SELECT MAX(salary)

FROM employee);