## Practice SQL Queries and results

SQL Having

**Query:**

SELECT

Employees.LastName, COUNT(Orders.OrderID) As NumOrders

FROM Orders

INNER JOIN Employees

ON Orders.EmployeeID = Employees.EmployeeID

GROUP BY LastName

HAVING COUNT(Orders.OrderID) > 15;

**Result:**

|  |  |
| --- | --- |
| **LastName** | **NumOrders** |
| Callahan | 27 |
| Davolio | 29 |
| Fuller | 20 |
| Leverling | 31 |
| Peacock | 40 |
| Suyama | 18 |

SQL Joins

**SQL Join**

**Query:**

SELECT Customers.CustomerName

FROM Orders

INNER JOIN Customers ON Orders.CustomerID=Customers.CustomerID

WHERE Customers.CustomerID < 5;

**Result:**

|  |
| --- |
| **CustomerName** |
| Ana Trujillo Emparedados y helados |
| Around the Horn |
| Antonio Moreno Taquería |
| Around the Horn |

SQL Left Join

**SQL Left Join**

**Query:**

SELECT Orders.OrderID, Orders.CustomerID, Orders.OrderDate

FROM Orders

LEFT JOIN Customers

ON Orders.CustomerID = Customers.CustomerID

WHERE Orders.CustomerID < 4;

**Result:**

|  |  |  |
| --- | --- | --- |
| **OrderID** | **CustomerID** | **OrderDate** |
| 10308 | 2 | 1996-09-18 |
| 10365 | 3 | 1996-11-27 |

SQL Inner Join

**Query:**

**SELECT Orders.OrderID, Customers.CustomerName**

**FROM Orders**

**INNER JOIN Customers**

**ON Orders.CustomerID = Customers.CustomerID**

**WHERE Customers.CustomerID < 4**

**Result:**

|  |  |
| --- | --- |
| **OrderID** | **CustomerName** |
| 10308 | Ana Trujillo Emparedados y helados |
| 10365 | Antonio Moreno Taquería |

SQL Self Join

**Query:**

**SELECT A.CustomerName AS CustomerName1, B.CustomerName AS CustomerName2, A.City**

**FROM Customers A, Customers B**

**WHERE A.CustomerID <> B.CustomerID**

**AND A.City = B.City**

**ORDER BY A.City;**

**Result:**

|  |  |  |
| --- | --- | --- |
| **CustomerName1** | **CustomerName2** | **City** |
| Cactus Comidas para llevar | Océano Atlántico Ltda. | Buenos Aires |
| Cactus Comidas para llevar | Rancho grande | Buenos Aires |
| Océano Atlántico Ltda. | Cactus Comidas para llevar | Buenos Aires |
| Océano Atlántico Ltda. | Rancho grande | Buenos Aires |
| Rancho grande | Cactus Comidas para llevar | Buenos Aires |

SQL Right Join

**Query:**

**SELECT Orders.OrderID, Employees.LastName, Employees.FirstName**

**FROM Orders**

**RIGHT JOIN Employees**

**ON Orders.EmployeeID = Employees.EmployeeID**

**WHERE Orders.OrderID < 10250**

**ORDER BY Orders.OrderID;**

**Result:**

|  |  |  |
| --- | --- | --- |
| **OrderID** | **LastName** | **FirstName** |
| 10248 | Buchanan | Steven |
| 10249 | Suyama | Michael |

SQL FULL OUTER JOIN

**Query:**

**SELECT Customers.CustomerName, Orders.OrderID**

**FROM Customers**

**FULL OUTER JOIN Orders ON Customers.CustomerID=Orders.CustomerID**

**WHERE Customers.CustomerID < 3**

**ORDER BY Customers.CustomerName;**

**Results:**

**CustomerName OrderID**

Alfreds Futterkiste NULL

Ana Trujillo Emparedados y helados 10308

SQL UNION

**Query:**

**SELECT City FROM Customers**

**UNION**

**SELECT City FROM Suppliers**

**ORDER BY City;**

**Result:**

|  |
| --- |
| **City** |
| Aachen |
| Albuquerque |
| Anchorage |
| Ann Arbor |
| Annecy |
| Barcelona |
| Barquisimeto |
| Bend |
| Bergamo |

SQL GROUP BY

**Query:**

**SELECT Country, COUNT(CustomerID)**

**FROM Customers**

**GROUP BY Country;**

**Result:**

|  |  |
| --- | --- |
| **Country** | **COUNT(CustomerID)** |
| Argentina | 3 |
| Austria | 2 |
| Belgium | 2 |
| Brazil | 9 |
| Canada | 3 |
| Denmark | 2 |
| Finland | 2 |
| France | 11 |

SQL Exists:

**Query:**

**SELECT SupplierName**

**FROM Suppliers**

**WHERE EXISTS (SELECT ProductName FROM Products WHERE Products.SupplierID = Suppliers.SupplierID);**

**Result:**

|  |
| --- |
| **SupplierName** |
| Exotic Liquid |
| New Orleans Cajun Delights |
| Grandma Kelly's Homestead |
| Tokyo Traders |
| Cooperativa de Quesos 'Las Cabras' |
| Mayumi's |
| Pavlova, Ltd. |

SQL Any, All

**All:**

**Query:**

**SELECT ProductName**

**FROM Products**

**WHERE ProductID = ALL(SELECT ProductID FROM OrderDetails WHERE Quantity = 6 OR Quantity = 5);**

**Result:**

Mozzarella di Giovanni

Gustaf's Knäckebröd

Mascarpone Fabioli

Sir Rodney's Marmalade

Raclette Courdavault

Guaraná Fantástica

Nord-Ost Matjeshering

**Any**

**Query:**

**SELECT ProductName**

**FROM Products**

**WHERE ProductID = ANY (SELECT ProductId**

**FROM OrderDetails**

**WHERE Quantity = 100);**

**Result:**

Steeleye Stout

SQL Select Into

**Query:**

**SELECT CustomerName INTO MyNewTable**

**FROM Customers**

**WHERE CustomerID < 3;**

**Result:**

Alfreds Futterkiste

Ana Trujillo Emparedados y helados

SQL Insert Into SELECT

**Query:**

**INSERT INTO Customers(CustomerName)**

**SELECT LastName FROM Employees WHERE EmployeeID < 3;**

**Result:**

You have made changes to the database. Rows affected: 2

SQL Case

**Query:**

**SELECT OrderID, Quantity,**

**CASE**

**WHEN Quantity = '100' THEN 'The quantity is 100'**

**WHEN Quantity > '2' THEN 'It is one item'**

**ELSE 'The quantity is under 30'**

**END AS QuantityText**

**FROM OrderDetails WHERE OrderID < 10250;**

**Result:**

|  |  |  |
| --- | --- | --- |
| **OrderID** | **Quantity** | **QuantityText** |
| 10248 | 12 | It is one item |
| 10248 | 10 | It is one item |
| 10248 | 5 | It is one item |
| 10249 | 9 | It is one item |
| 10249 | 40 | It is one item |

SQL NULL FUNCTIONS

**Query:**

**SELECT ProductID, Price \* 1.20 \* IFNULL(Price, 0)**

**FROM Products**

**WHERE ProductID < 3;**

**Result:**

|  |  |
| --- | --- |
| **ProductID** | **Price \* 1.20 \* IFNULL(Price, 0)** |
| 1 | 388.79999999999995 |
| 2 | 433.2 |

**SQL Stored Procedures**

**Query:**

**CREATE PROCEDURE SelectProductsLessThan @Price int(11)**

**AS**

**SELECT ProductName FROM Products WHERE Price < @Price**

**GO;**

**EXEC SelectProductsLessThan @Price = 5;**

**Result:**

|  |
| --- |
| **ProductName** |
| Guaraná Fantástica |
| Geitost |