

Optional Homework Assignments

1. How many products are there by category? List out CategoryName, and number of products?

```
SELECT Categories.CategoryName, Count(Products.ProductID) as  
NumberOfProducts  
FROM Products  
INNER Join Categories ON Categories.CategoryID = Products.CategoryID  
Group by Categories.CategoryName  
ORDER BY 1
```

2. Which customer has the most number of Orders?

```
Select Customers.CustomerName, Customers.customerId, count(orderID) cnt  
FROM ORders  
JOIN Customers ON Customers.customerID = Orders.CustomerID  
GROUP BY Customers.CustomerID  
ORDER BY cnt desc
```

3. Which customer has spent the most money in Orders?

```
SELECT C.CustomerID, C.CustomerName  
      , COUNT(DISTINCT O.OrderID) AS NumOfOrders  
      , ROUND(SUM(P.Price * OD.Quantity), 2) AS AMOUNT  
FROM [Orders] O  
INNER JOIN [Customers] C  
  ON O.CustomerID = C.CustomerID  
INNER JOIN [OrderDetails] OD  
  ON O.OrderID = OD.OrderID  
INNER JOIN [Products] P  
  ON P.ProductID = OD.ProductID  
GROUP BY C.CustomerID  
ORDER BY Amount DESC  
LIMIT 1
```