Project: AdventureWorks SQL queries

Author: Somoye Oluwaseun Somoye

```
---Used data
Select *
From [HumanResources].[Employee]

 --- Used data
 Select *
From [Person].[Person]

--- Used data
Select *
From [Sales].[Customer]

--- Used data
Select *
From [Sales].[SalesOrderDetail]

--- Used data
Select *
From [Sales].[SalesOrderHeader]

Select *
From [Sales].[SalesOrderHeaderSalesReason]

Select *
From [Sales].[SalesReason]

Select *
From [Production].[Product]

--- Answers questions
--- employee that are also company customers
SELECT b.BusinessEntityID, a.JobTitle, a.BirthDate, a.Gender, b.FirstName, b.MiddleName,
b.Lastname

FROM [AdventureWorks2022].[HumanResources].[Employee] a

Inner JOIN
[AdventureWorks2022].[Person].[Person] b

On a.BusinessEntityID = b.BusinessEntityID


--- customers only with no employee added
SELECT b.BusinessEntityID, a.BirthDate, a.Gender, b.FirstName, b.MiddleName, b.Lastname

FROM [AdventureWorks2022].[HumanResources].[Employee] a

Full outer JOIN
[AdventureWorks2022].[Person].[Person] b

On a.BusinessEntityID = b.BusinessEntityID

Where a.BusinessEntityID is null
```

```sql
--- all customers with their territory
SELECT b.FirstName, b.MiddleName, b.Lastname, c.TerritoryID


FROM [AdventureWorks2022].[HumanResources].[Employee] a

left JOIN
[AdventureWorks2022].[Person].[Person] b

On a.BusinessEntityID = b.BusinessEntityID

right Join

[AdventureWorks2022].[Sales].[Customer] c

on b.BusinessEntityID = c.CustomerID

Where a.Gender is null

--- SalesOrderDetail
Select *
From [Sales].[SalesOrderDetail]

--- Profit generated from each product
Select ProductID, SUM ((OrderQty * UnitPrice) - (OrderQty * UnitPriceDiscount)) as
SellingPrice
From  [Sales].[SalesOrderDetail]
GROUP BY ProductID
ORDER BY SellingPrice DESC

Select * --- ProductionProduct
From [Production].[Product]

--- Most profitable product
Select ProductID, SUM ((OrderQty * UnitPrice) - (OrderQty * UnitPriceDiscount)) as
SellingPrice
From  [Sales].[SalesOrderDetail]
GROUP BY ProductID
ORDER BY SellingPrice DESC


--- Profit per Territory (Sales performance per Territory)
Select Sum (SubTotal) as Profit, TerritoryID
From [Sales].[SalesOrderHeader]
GROUP BY TerritoryID
ORDER BY Profit DESC

--- Sales Person with highest sales (most successful sales person)
Select Sum (SubTotal) as Profit, SalesPersonID
From [Sales].[SalesOrderHeader]
GROUP BY SalesPersonID
ORDER BY Profit DESC

--- Customer numbers per Territory and profit made
Select Count (CustomerID) as Customers, Sum (SubTotal) as Profit, TerritoryID
From [Sales].[SalesOrderHeader]
GROUP BY TerritoryID
```

```sql
ORDER BY Profit DESC


--- Reason for sales per Territory
SELECT a.SalesReasonID, b.TerritoryID,
  CASE
    WHEN a.SalesReasonID = 1 THEN 'Price'
    WHEN a.SalesReasonID = 2 THEN 'Promotion'
    WHEN a.SalesReasonID = 3 THEN 'Magazine Advertisement'
    WHEN a.SalesReasonID = 4 THEN 'Television Advertisement'
    WHEN a.SalesReasonID = 5 THEN 'Manufacturer'
    WHEN a.SalesReasonID = 6 THEN 'Review'
    WHEN a.SalesReasonID = 7 THEN 'Demoshow'
    WHEN a.SalesReasonID = 8 THEN 'Sponsorship'
    WHEN a.SalesReasonID = 9 THEN 'Quality'
    WHEN a.SalesReasonID = 10 THEN 'Other'
    ELSE 'Unknown'
  END AS SalesReason
FROM
  [Sales].[SalesOrderHeaderSalesReason] a
INNER JOIN
  [Sales].[SalesOrderHeader] b
ON a.SalesOrderID = b.SalesOrderID
WHERE b.TerritoryID = 1
ORDER BY a.SalesReasonID

  ---Sales reasons in each territory
 SELECT b.TerritoryID, a.SalesReasonID,
  COUNT(a.SalesReasonID) AS SalesReasonCount
   FROM
  [Sales].[SalesOrderHeaderSalesReason] a
INNER JOIN
  [Sales].[SalesOrderHeader] b
ON a.SalesOrderID = b.SalesOrderID
WHERE b.TerritoryID = 10 --- do it for each territory 1 to 10
GROUP BY b.TerritoryID, a.SalesReasonID

   ---Sales reasons per territory
 SELECT
  b.TerritoryID,
  a.SalesReasonID,
  COUNT(a.SalesReasonID) AS SalesReasonCount
   FROM
  [Sales].[SalesOrderHeaderSalesReason] a
INNER JOIN
  [Sales].[SalesOrderHeader] b
ON
  a.SalesOrderID = b.SalesOrderID
GROUP BY b.TerritoryID, a.SalesReasonID

 --- Converting the reasons to string
 SELECT b.TerritoryID, a.SalesReasonID,
  CASE
    WHEN a.SalesReasonID = 1 THEN 'Price'
    WHEN a.SalesReasonID = 2 THEN 'Promotion'
    WHEN a.SalesReasonID = 3 THEN 'Magazine Advertisement'
    WHEN a.SalesReasonID = 4 THEN 'Television Advertisement'
    WHEN a.SalesReasonID = 5 THEN 'Manufacturer'
```

```
    WHEN a.SalesReasonID = 6 THEN 'Review'
    WHEN a.SalesReasonID = 7 THEN 'Demoshow'
    WHEN a.SalesReasonID = 8 THEN 'Sponsorship'
    WHEN a.SalesReasonID = 9 THEN 'Quality'
    WHEN a.SalesReasonID = 10 THEN 'Other'
    ELSE 'Unknown'
  END AS SalesReason,
  COUNT(a.SalesReasonID) AS SalesReasonCount
FROM
  [Sales].[SalesOrderHeaderSalesReason] a
INNER JOIN
  [Sales].[SalesOrderHeader] b
ON
  a.SalesOrderID = b.SalesOrderID
WHERE
  b.TerritoryID = 10
GROUP BY
  b.TerritoryID, a.SalesReasonID


---most popular product
Select sum(OrderQty) as Popularproduct, ProductID
From [Sales].[SalesOrderDetail]
Group by ProductID
Order by Popularproduct DESC
```