**DAMG 7370 AdventureWorksLT2019 Spring 2023**

# SQL Queries & Data Visualizations:

1. Total Sales $
   * Using SalesOrderHeader (ties to customer)

SELECT SUM(SOH.SubTotal) AS Total\_Sales\_SOH\_$ FROM SalesLT.SalesOrderHeader SOH;  
Total Sales: 865433.1171

Total rows: 1

* + Using SalesOrderDetail (ties to company)

SELECT SUM(SOD.LineTotal) AS Total\_Sales\_SOD\_$ FROM SalesLT.SalesOrderDetail SOD;

Total Sales: 708690.153058

Total rows: 1

* + Comaprison querying with SalesOrderHeader and SalesOrderDetail

SELECT SUM(SOH.SubTotal) AS Total\_Sales\_SOH\_$, (SELECT SUM(SOD.LineTotal) FROM SalesLT.SalesOrderDetail SOD) AS Total\_Sales\_SOD\_$ FROM SalesLT.SalesOrderHeader SOH;

(Using JOINS)

SELECT SUM( DISTINCT SOH.SubTotal) AS Total\_Sales\_SOH\_$, SUM(SOD.LineTotal) AS Total\_Sales\_SOD\_$ FROM SalesLT.SalesOrderDetail SOD

JOIN SalesLT.SalesOrderHeader SOH ON SOD.SalesOrderID = SOH.SalesOrderID

Total Sales: 865433.1171 (SOH), 708690.153058 (SOD)

Total rows: 1

1. Total Sales $ by Country – Ranked/Sorted (Highest to Lowest)

SELECT SUM(SOH.SubTotal) AS Total\_Sales\_$, A.CountryRegion AS Country, RANK() OVER (ORDER BY SUM(SOH.SubTotal) DESC) Rank FROM SalesLT.SalesOrderHeader SOH

JOIN SalesLT.Address A ON SOH.BillToAddressID = A.AddressID GROUP BY A.CountryRegion ORDER BY Rank;

Total rows: 2

1. Total Sales $ by Country, State and City

SELECT SUM(SOH.SubTotal) AS Total\_Sales\_$, A.CountryRegion AS Country, A.StateProvince AS State, A.City FROM SalesLT.SalesOrderHeader SOH

JOIN SalesLT.Address A ON SOH.BillToAddressID = A.AddressID GROUP BY A.CountryRegion, A.StateProvince, A.City;

Total rows: 29

1. Total sales $ by customer (person) – ranked/sorted (highest to lowest)

Using SOH:

SELECT SUM(SOH.SubTotal) AS Total\_Sales\_$, COALESCE(C.LastName,'') + ', ' + C.FirstName AS CustomerName, RANK() OVER (ORDER BY SUM(SOH.SubTotal) DESC) AS Rank

FROM SalesLT.SalesOrderHeader SOH

JOIN SalesLT.Customer C ON SOH.CustomerID = C.CustomerID GROUP BY FirstName, LastName ORDER BY Rank;

Total rows: 32

Using SOD:  
SELECT SUM(SOD.LineTotal) AS Total\_Sales\_$, COALESCE(C.LastName, '') + ', ' + C.FirstName AS CustomerName, RANK() OVER (ORDER BY SUM(SOD.LineTotal) DESC) AS Rank

FROM SalesLT.SalesOrderDetail SOD

JOIN SalesLT.SalesOrderHeader SOH ON SOD.SalesOrderID = SOH.SalesOrderID

JOIN SalesLT.Customer C ON C.CustomerID = SOH.CustomerID GROUP BY C.FirstName, C.LastName ORDER BY Rank;

Total rows: 32

1. Total sales $ & by customer (company) – ranked/sorted (highest to lowest)

Using SOH:

SELECT SUM(SOH.SubTotal) AS Total\_Sales\_$, C.CompanyName, RANK() OVER (ORDER BY SUM(SOH.SubTotal) DESC) AS Rank FROM SalesLT.SalesOrderHeader SOH

JOIN SalesLT.Customer C ON SOH.CustomerID = C.CustomerID GROUP BY C.CompanyName ORDER BY Rank;

Total rows: 32

Using SOD:

SELECT SUM(SOD.LineTotal) AS Total\_Sales\_$, C.CompanyName, RANK() OVER (ORDER BY SUM(SOD.LineTotal) DESC) AS Rank FROM SalesLT.SalesOrderDetail SOD

JOIN SalesLT.SalesOrderHeader SOH ON SOD.SalesOrderID = SOH.SalesOrderID

JOIN SalesLT.Customer C ON C.CustomerID = SOH.CustomerID GROUP BY C.CompanyName ORDER BY Rank;

Total rows: 32

1. Sales $ by product category hierarchy – Product & vGetAllCategories

SELECT PPC.Name AS ParentProductCategory, PC.Name AS ProductCategory, P.Name AS ProductName, SUM(SOD.LineTotal) AS Total\_Sales\_$ FROM SalesLT.ProductCategory PC

JOIN SalesLT.ProductCategory PPC ON PC.ProductCategoryID = PPC.ParentProductCategoryID

JOIN SalesLT.Product P ON P.ProductCategoryID = PPC.ProductCategoryID

JOIN SalesLT.SalesOrderDetail SOD ON SOD.ProductID = P.ProductID GROUP BY PPC.Name, PC.Name, P.Name ORDER BY SUM(SOD.LineTotal) DESC;

Total rows: 142

1. Sales $ by product name – ranked/sorted (highest to lowest)

Using SOH:

SELECT SUM(SOH.SubTotal) AS Total\_Sales\_$, P.Name, RANK() OVER (ORDER BY SUM(SOH.SubTotal) DESC) AS Rank FROM SalesLT.SalesOrderHeader SOH

JOIN SalesLT.SalesOrderDetail SOD ON SOH.SalesOrderID = SOD.SalesOrderID

JOIN SalesLT.Product P ON P.ProductID = SOD.ProductID GROUP BY P.Name ORDER BY Rank;

Total rows: 142

Using SOD:

SELECT SUM(SOD.LineTotal) AS Total\_Sales\_$, P.Name, RANK() OVER (ORDER BY SUM(SOD.LineTotal) DESC) AS Rank FROM SalesLT.SalesOrderDetail SOD

JOIN SalesLT.Product P ON P.ProductID = SOD.ProductID GROUP BY P.Name ORDER BY Rank;

Total rows: 142

1. Sales $ by Company (Reseller)

Using SOH:

SELECT SUM(SOH.SubTotal) AS Total\_Sales\_$, C.CompanyName FROM SalesLT.SalesOrderHeader SOH

JOIN SalesLT.Customer C ON SOH.CustomerID = C.CustomerID GROUP BY C.CompanyName;

Total rows: 32

Using SOD:

SELECT SUM(SOD.LineTotal) AS Total\_Sales\_$, C.CompanyName FROM SalesLT.SalesOrderDetail SOD

JOIN SalesLT.SalesOrderHeader SOH ON SOD.SalesOrderID = SOH.SalesOrderID

JOIN SalesLT.Customer C ON C.CustomerID = SOH.CustomerID GROUP BY C.CompanyName;

Total rows: 32

1. Product Category Sales $ by Company (Reseller)

SELECT PPC.Name AS ParentProductCategory, PC.Name AS ProductCategory, C.CompanyName AS ProductName, SUM(SOD.LineTotal) AS Total\_Sales\_$ FROM SalesLT.ProductCategory PC

JOIN SalesLT.ProductCategory PPC ON PC.ProductCategoryID = PPC.ParentProductCategoryID

JOIN SalesLT.Product P ON P.ProductCategoryID = PPC.ProductCategoryID

JOIN SalesLT.SalesOrderDetail SOD ON SOD.ProductID = P.ProductID

JOIN SalesLT.SalesOrderHeader SOH ON SOH.SalesOrderID = SOD.SalesOrderID

JOIN SalesLT.Customer C ON C.CustomerID = SOH.CustomerID GROUP BY PPC.Name, PC.Name, C.CompanyName;  
Total rows: 195

SQL File:

