-- **Objective: Analyze the sales data of this database**

---- EXPLORATORY DATA ANALYSIS

-- What brands cost the more on Average

SELECT DISTINCT(make),AVG(listPrice) AS [Average Price]

FROM dbo.Automobiles

GROUP BY make

ORDER BY AVG(listPrice) DESC;

-- What cars cost more on Average

SELECT DISTINCT(model), make ,AVG(listPrice) AS [Average Price]

FROM dbo.Automobiles

GROUP BY model, make

ORDER BY AVG(listPrice) DESC;

-- Average listPrice per Brand for New and Used cars

SELECT DISTINCT(condition), AVG(listPrice) AS [Average Price]

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GROUP BY condition

ORDER BY AVG(listPrice) DESC;

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-- Best SalesPerson in Overall (Those who generated more Revenue vs Revenue per Sale)

-- Overall Revenue

SELECT firstName + ' ' + lastName AS [Sales Person Full Name] , SUM(salePrice) AS [Total Revenue Generated]

FROM dbo.SalesPeople, dbo.Sales

WHERE dbo.SalesPeople.salesPersonId = dbo.Sales.salesPersonId

GROUP BY firstName + ' ' + lastName

ORDER BY SUM(salePrice) DESC;

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-- Revenue per Sale - (the AVG function would work here instead the SUM/COUNT, however I chose this approach to show the logical reasoning from the previous step.

SELECT firstName + ' ' + lastName AS [Sales Person Full Name] , SUM(salePrice)/COUNT(salePrice) AS [Revenue per Sale], COUNT(saleId) AS [Number of Sales]

FROM dbo.SalesPeople, dbo.Sales

WHERE dbo.SalesPeople.salesPersonId = dbo.Sales.salesPersonId

GROUP BY firstName + ' ' + lastName

ORDER BY SUM(salePrice)/COUNT(salePrice) DESC;

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/\* General comment:

- Even though Sandra Baker appears at the TOP sales person in terms of revenue generated for the company, Pauline Hill is doing better in terms of efficiency,

with an average of $27,962 of Revenue per Sale, with total number of sales of 16 against Sandra's 28 sales.

\*/

-- Best SalesPerson in Overall that generated the most Profit SUM(salePrice - dealerPrice)

SELECT firstName, lastName, SUM(salePrice) - SUM(dealerPrice) AS [Total Profit Generated]

FROM dbo.SalesPeople, dbo.Sales, dbo.Automobiles

WHERE dbo.SalesPeople.salesPersonId = dbo.Sales.salesPersonId AND dbo.Automobiles.automobileId = dbo.Sales.automobileId

GROUP BY firstName, lastName

ORDER BY SUM(salePrice) - SUM(dealerPrice) DESC;

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-- Assuming that the commission rate is 25% on profit, how much did each sales person get at the end of the period.

SELECT firstName + ' ' + lastName AS [Full Name], SUM(salePrice) - SUM(dealerPrice) AS [Total Profit Generated], (SUM(salePrice) - SUM(dealerPrice)) \* 0.25 AS [Total Commission]

FROM dbo.SalesPeople, dbo.Sales, dbo.Automobiles

WHERE dbo.SalesPeople.salesPersonId = dbo.Sales.salesPersonId AND dbo.Automobiles.automobileId = dbo.Sales.automobileId

GROUP BY firstName + ' ' + lastName

ORDER BY SUM(salePrice) - SUM(dealerPrice) DESC;

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