# Bike Sale Presentation

## Query 1: Replacing 10+ Miles with 10 Miles and above

SELECT \* FROM [dbo].[Bike\_sale]

Explanation: This query updates the Commute\_Distance column, replacing the value '10+ Miles' with '10 Miles and above'.

## Query 2: Replacing M and S with Married and Single

UPDATE Bike\_sale

SET Marital\_Status = CASE

WHEN Marital\_Status ='M' THEN 'Married'

WHEN Marital\_Status = 'S' THEN 'Single'

ELSE Marital\_Status

END

WHERE Marital\_Status IN ('M','S')

Explanation: This query updates the Marital\_Status column, replacing 'M' with 'Married' and 'S' with 'Single'.

## Query 3: Replacing M and F with Male and Female

UPDATE Bike\_sale

SET Gender = CASE

WHEN Gender = 'M' THEN 'Male'

WHEN Gender = 'F' THEN 'Female'

END

WHERE Gender IN ('M','F')

Explanation: This query updates the Gender column, replacing 'M' with 'Male' and 'F' with 'Female'.

## Query 4: Selecting Commute\_Distance where it equals '10 Miles and above'

SELECT Commute\_Distance FROM Bike\_sale

WHERE Commute\_Distance = '10 Miles and above'

Explanation: This query retrieves the rows where Commute\_Distance is '10 Miles and above'.

## Query 5: Determining the sales by age range

SELECT

CASE

WHEN Age >= 25 AND Age <= 32 THEN '25-32'

WHEN Age > 32 AND Age <= 45 THEN '32-45'

WHEN Age > 45 AND Age <= 60 THEN '45-60'

ELSE 'Above 60'

END AS [Age Range],

SUM(CASE WHEN Purchased\_Bike = 1 THEN 1 ELSE 0 END) AS Total\_Sales,

(SUM(CASE WHEN Purchased\_Bike = 1 THEN 1 ELSE 0 END) / CAST(SUM(1) AS FLOAT)) \* 100 AS Percentage

FROM

Bike\_sale

GROUP BY

CASE

WHEN Age >= 25 AND Age <= 32 THEN '25-32'

WHEN Age > 32 AND Age <= 45 THEN '32-45'

WHEN Age > 45 AND Age <= 60 THEN '45-60'

ELSE 'Above 60'

END;

Explanation: This query calculates the sales by age range. It groups the data into specific age ranges and calculates the total sales and percentage of sales for each range

# Query 6: Finding the sum of sales by continents (assuming the Region column represents continents)

SELECT Region, SUM(Purchased\_Bike) AS Total\_Sales

FROM Bike\_sale

GROUP BY Region;

Explanation: This query calculates the total sales for each region/continent by grouping the data based on the Region column.

## Query 7: Finding the commute distance by gender

SELECT Gender,

SUM(CASE WHEN Commute\_Distance = '0-5 Miles' THEN 1

WHEN Commute\_Distance = '5-10 Miles' THEN 2

WHEN Commute\_Distance = '10-20 Miles' THEN 3

ELSE 4

END) AS Commute\_Distance

FROM Bike\_sale

GROUP BY Gender;

Explanation: This query calculates the commute distance by summing the corresponding values for each gender. It assigns specific weights for different commute distance ranges. The result is the commute distance by gender.

## Query 8: Checking the trend of purchasing bikes by commute distance

SELECT Commute\_Distance, COUNT(\*) AS Number\_of\_Purchases

FROM Bike\_sale

WHERE Purchased\_Bike = 1

GROUP BY Commute\_Distance;

Explanation: This query calculates the number of purchased bikes for each commute distance range. It provides insights into the trend of bike purchases based on different commute distances.

## Query 9: Determining the average income of each gender

SELECT Gender, AVG(Income) AS Average\_Income

FROM Bike\_sale

GROUP BY Gender;

Explanation: This query calculates the average income for each gender by grouping the data based on the Gender column.

## Query 10: Calculating the number of sold and unsold bikes

SELECT SUM(CASE WHEN Purchased\_Bike = 1 THEN 1 ELSE 0 END) AS Sold\_Bikes,

SUM(CASE WHEN Purchased\_Bike = 0 THEN 1 ELSE 0 END) AS Unsold\_Bikes

FROM Bike\_sale;

Explanation: This query calculates the total number of sold and unsold bikes by summing the values of the Purchased\_Bike column.

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## Query 11: Calculating the bike sales margin for each education profession

SELECT Education AS Profession,

SUM(CASE WHEN Purchased\_Bike = 1 THEN 1 ELSE 0 END) AS Sold\_Bikes,

SUM(CASE WHEN Purchased\_Bike = 0 THEN 1 ELSE 0 END) AS Unsold\_Bikes,

(SUM(CASE WHEN Purchased\_Bike = 1 THEN 1 ELSE 0 END) - SUM(CASE WHEN Purchased\_Bike = 0 THEN 1 ELSE 0 END)) AS Sales\_Margin

FROM Bike\_sale

GROUP BY Education;

Explanation: This query calculates the number of bikes sold and unsold for each education profession. It provides insights into the sales performance for each profession.

## Query 12: Calculating the income of individuals based on their education profession

SELECT Education AS Profession,

SUM(Income) AS Total\_Income

FROM Bike\_sale

GROUP BY Education

ORDER BY Total\_Income DESC;

Explanation: This query calculates the total income for each education profession by grouping the data based on the Education column. The results are sorted in descending order based on total income.

## Query 13: Home ownership rates vary by marital status

SELECT Marital\_Status,

SUM(CASE WHEN Home\_Ownership = 'Yes' THEN 1 ELSE 0 END) AS Homeowners,

SUM(CASE WHEN Home\_Ownership = 'No' THEN 1 ELSE 0 END) AS Non\_Homeowners

FROM Bike\_sale

GROUP BY Marital\_Status;

Explanation: This query calculates the number of homeowners and non-homeowners for each marital status. It provides insights into the relationship between home ownership and marital status.

## Query 14: Figuring out the tendency of purchasing bikes based on having cars

SELECT Marital\_Status, Cars\_Owned, COUNT(\*) AS Number\_of\_Purchases

FROM Bike\_sale

WHERE Purchased\_Bike = 1

GROUP BY Marital\_Status, Cars\_Owned;

Explanation: This query analyzes the bike purchase tendency based on marital status and the number of cars owned. It calculates the number of bikes sold for each combination.