***1).* Identify which campaigns have generated the most revenue to understand their return on investment. Include all campaigns and replace all NULL values with 0.**

SELECT Campaigns.CampaignName, COALESCE(SUM(Sales.TotalAmount), 0) AS TotalRevenue

FROM Campaigns

LEFT JOIN Interactions ON Campaigns.CampaignID = Interactions.CampaignID

LEFT JOIN Sales ON Interactions.CustomerID = Sales.CustomerID

GROUP BY Campaigns.CampaignName

ORDER BY TotalRevenue DESC;

**2). Determine the efficiency of marketing campaigns based on the cost per item sold, identifying which campaign achieved the lowest acquisition cost.**

SELECT Campaigns.CampaignName, Campaigns.Budget, SUM(Sales.Quantity) as TotalSales, Campaigns.Budget/SUM(Sales.Quantity) as CostPerItemSold

FROM Campaigns

JOIN Interactions ON Campaigns.CampaignID = Interactions.CampaignID

JOIN Sales ON Interactions.CustomerID = Sales.CustomerID

GROUP BY Campaigns.CampaignName

ORDER BY CostPerItemSold ASC;

ORDER BY NumberOfInteractions DESC;

**3). Evaluate which interaction type lead to the most sales to optimize marketing channels**

SELECT Interactions.InteractionType, COUNT(Sales.SaleID) AS NumberOfSales

FROM Interactions

JOIN Sales ON Interactions.CustomerID = Sales.CustomerID

GROUP BY Interactions.InteractionType

ORDER BY NumberOfSales DESC;

**4). Analyze the average amount spent and the quantity purchased in sales associated with each campaign to gauge customer buying behaviour. Which campaign has an average quantity equals to 1.41666666666667?**

SELECT Campaigns.CampaignName,

AVG(Sales.TotalAmount) AS AverageAmountSpent,

AVG(Sales.Quantity) AS AverageQuantityPurchased

FROM Campaigns

JOIN Interactions ON Campaigns.CampaignID = Interactions.CampaignID

JOIN Sales ON Interactions.CustomerID = Sales.CustomerID

GROUP BY Campaigns.CampaignName

ORDER BY Campaigns.CampaignName;

**5). Identify the top three customers who have made the most purchases, along with the total amount they've spent. This information will provide insights into the highest contributing customers across all campaigns.**

**Who is the customer who has made the most purchases and how much did they spend?**

SELECT Customers.CustomerID,

CustomerName,

COUNT(Sales.SaleID) AS PurchaseCount,

SUM(Sales.TotalAmount) AS TotalSpent

FROM Customers

LEFT JOIN Sales ON Customers.CustomerID = Sales.CustomerID

GROUP BY Customers.CustomerID, CustomerName

ORDER BY TotalSpent DESC

LIMIT 3;