**QUERY DOCUMENT**

**DATA MODELLING**

**A screenshot of a computer

Description automatically generated**

**DAX**

**Create a measure table to contain all measures**

**1.** Quantity Sold = SUM('Sales Data'[OrderQuantity])

**2.** Quantity Return = SUM('Returns Data'[ReturnQuantity])

**3.** Average Retail Price = AVERAGE('Product Lookup'[ProductPrice])

**4.** Total Returns = COUNT('Returns Data'[ReturnQuantity])

**5.** Total Orders = DISTINCTCOUNT('Sales Data'[OrderNumber])

**6.** Total Customers = DISTINCTCOUNT('Sales Data'[CustomerKey])

**7.** Return Rate = DIVIDE([Quantity Return], [Quantity Sold], "No Sales")

Create a calculated column in Customer Lookup table

1. Is Parent ? = IF('Customer Lookup'[TotalChildren] > 0, "YES", "NO")

Create calculated column in Calendar Lookup table to calculate Month Number

2. Month Numner (SWITCH) = SWITCH(

'Calendar Lookup'[Month Name],

"January","1",

"February","2",

"March","3",

"April","4",

"May","5",

"June","6",

"July","7",

"August","8",

"September","9",

"October","10",

"November","11",

"December","12",

"Other”

)

Create a calculated column in Product Lookup

3. Price Point = SWITCH(

    TRUE(),

    'Product Lookup'[ProductPrice] > 500, "High",

    'Product Lookup'[ProductPrice]  >100, "Mid-range",

    "Low")

Create calculated column in Customer Lookup for Income level

4. Income Level =

IF('Customer Lookup'[AnnualIncome] >= 150000, "Very High",

IF('Customer Lookup'[AnnualIncome] >= 100000, "High",

IF('Customer Lookup'[AnnualIncome] >= 50000, "Average",

"Low")))

5. Education Category = SWITCH(

    'Customer Lookup'[EducationLevel],

    "High School","High School",

    "Partial High School", "High School",

    "Bachelors", "Undergrad",

    "Partial College", "Undergrad",

    "Graduate Degree", "Graduate"

)

6. Customer Full Name (CC) = 'Customer Lookup'[Prefix] & " " & 'Customer Lookup'[FirstName] & " " & 'Customer Lookup'[LastName]

Create a calculated column in Calendar Lookup

7. Month Short = UPPER(LEFT('Calendar Lookup'[Month Name], 3))

Create a column in Product Lookup table

8. SKU Category = LEFT('Product Lookup'[ProductSKU], SEARCH("-", 'Product Lookup'[ProductSKU]) -1)

Create a calculated column in Calendar Lookup table

9. Day of Week = WEEKDAY('Calendar Lookup'[Date],2)

10. Weekend = IF('Calendar Lookup'[Day of Week] IN {6,7}, "Weekend", "Weekday")

Go to Customer Lookup table

11. Birth Year = YEAR('Customer Lookup'[BirthDate])

Add a calculated column in Sales Data table

12. Retail Price =

RELATED(

    'Product Lookup'[ProductPrice]

)

13. Revenue =

'Sales Data'[Retail Price] \* 'Sales Data'[OrderQuantity]

14. Quantity Type = IF('Sales Data'[OrderQuantity] > 1, "Multiple Items", "Single Item")

MEASURES  
Go to Measure Table

Create a new measure for Bulk Orders

8. Bulk Orders = CALCULATE([Total Orders], 'Sales Data'[OrderQuantity] > 1)

9. Weekend Orders = CALCULATE([Total Orders], 'Calendar Lookup'[Weekend] = "Weekend")

10. Bike Returns = CALCULATE([Total Returns], 'Product Category Lookup'[CategoryName] = "Bikes")

11. Bike Sales = CALCULATE([Total Orders], 'Product Category Lookup'[CategoryName] = "Bikes")

12. Bike Return Rate = CALCULATE([Return Rate], 'Product Category Lookup'[CategoryName] = "Bikes")

13. All orders = CALCULATE([Total Orders], ALL('Sales Data'))

14. % of All Orders = DIVIDE([Total Orders], [All orders])

15. Overall average price = CALCULATE([Average Retail Price], ALL('Product Lookup'))

16. All Returns = CALCULATE([Total Returns], ALL('Returns Data'))

17. % of All Returns = DIVIDE([Total Returns], [All Returns])

18. High Ticket Orders = CALCULATE([Total Orders], FILTER('Product Lookup', 'Product Lookup'[ProductPrice] > [Overall average price]))

19. Total Revenue = SUMX('Sales Data', 'Sales Data'[OrderQuantity] \* RELATED('Product Lookup'[ProductPrice]))

20. Average Revenue per Customer = DIVIDE([Total Revenue], [Total Customers])

21. Total Cost = SUMX('Sales Data', 'Sales Data'[OrderQuantity] \* RELATED('Product Lookup'[ProductCost]))

22. Total Profit = [Total Revenue] - [Total Cost]

23. YTD Revenue = CALCULATE([Total Revenue], DATESYTD('Calendar Lookup'[Date]))

24. Previous Month Revenue = CALCULATE([Total Revenue], DATEADD('Calendar Lookup'[Date],-1,MONTH))

25. 10-day Rolling Revenue = CALCULATE([Total Revenue], DATESINPERIOD('Calendar Lookup'[Date], MAX('Calendar Lookup'[Date]),-10,DAY))

26. Previous Month Returns = CALCULATE([Total Returns], DATEADD('Calendar Lookup'[Date],-1,MONTH))

27. Previous Month Orders = CALCULATE([Total Orders], DATEADD('Calendar Lookup'[Date],-1,MONTH))

28. Previous Month Profit = CALCULATE([Total Profit], DATEADD('Calendar Lookup'[Date],-1,MONTH))

29. Order Target = [Previous Month Orders] \* 1.1

30. Profit Target = [Previous Month Profit] \* 1.1

31. 90-day Rolling Revenue = CALCULATE([Total Profit], DATESINPERIOD('Calendar Lookup'[Date], MAX('Calendar Lookup'[Date]),-90,DAY))