Adidas Sales Dashboard - Data Model Documentation

1. Tables Overview

• Products: Contains product-level information such as product name.
• Retailer: Contains retailer details like Retailer ID, City, Region, and State.
• Sales (Fact Table): Contains transactional data with columns such as Invoice Date, Product, Retailer ID, Price per Unit, Units Sold, Total Sales, Operating Margin, and Operating Profit.
• Calendar: Date dimension table created using DAX. Includes Date, Day, Month Name, Month Number, and Quarter.

2. Relationships Between Tables

• Products[Product] → Sales[Product]
• Retailer[Retailer ID] → Sales[Retailer ID]
• Calendar[Date] → Sales[Invoice Date]

These relationships create a Star Schema where Sales is the central fact table connected to dimension tables.

3. Key Calculations and Measures

	Measures (DAX)
Sales	• Average Price per Unit = AVERAGE(Sales[Price per Unit]) • Profit Margin = DIVIDE(SUM(Sales[Operating Profits]), SUM(Sales[Total Sale])) • Profit per Unit = DIVIDE(SUM(Sales[Operating Profits]), SUM(Sales[Units Sold])) • Total Sales = SUM(Sales[Total Sale]) • Total Profit = SUM(Sales[Operating Profits]) • Total Units Sold = SUM(Sales[Units Sold])
Retailer	• Profit by Region = CALCULATE([Total Profit],VALUES(Retailer[Region])) • Region Margin = DIVIDE([Profit by Region], [Sales by Region])

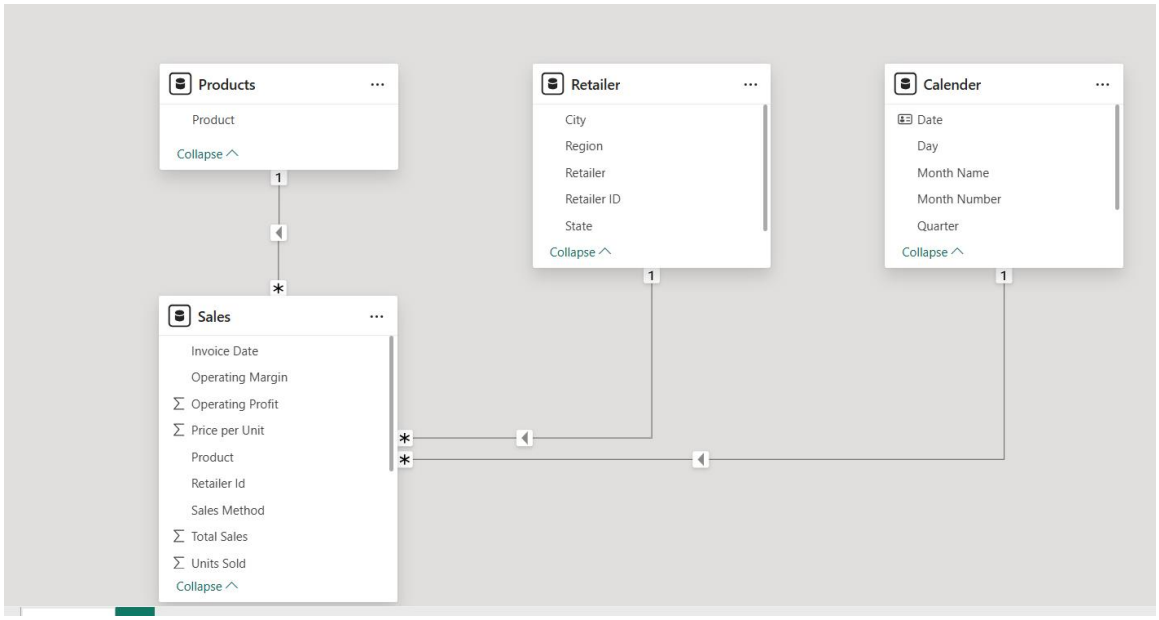
	• Sales by Region = CALCULATE([Total Sales],VALUES(Retailer[Region]))
Calendar	• Table created using DAX: VAR MinDate = CALCULATE(MIN(Sales[Invoice Date]),ALL(Sales)) VAR MaxDate = CALCULATE(MAX(Sales[Invoice Date]),ALL(Sales)) RETURN ADDCOLUMNS(CALENDAR(MinDate,MaxDate), "Year",YEAR([Date]), "Month Number",MONTH([Date]), "MonthName",FORMAT([Date],"MMMM"),"Quarter","Q" & FORMAT([Date],"Q") "Day",DAY(DAY([Date])))

4. Notes

• Assumptions: All sales data is complete and consistent across tables. Calendar table covers all invoice dates.
• Transformations: Date fields standardized; relationships established using unique keys (Product, Retailer ID, Date).
• Important Details: Data follows a Star Schema model for efficient reporting and DAX calculations.

5. Data Model Diagram

Below is the visual representation of the data model used in Power BI:


Products
Product
Collapse
Retailer
City
Region
Retailer
Retailer ID
State
Collapse
Calender
Date
Day
Month Name
Month Number
Quarter
Collapse
Sales
Invoice Date
Operating Margin
Operating Profit
Price per Unit
Product
Retailer Id
Sales Method
Total Sales
Units Sold
Collapse
1
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1
1
*
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