Milestone – III
Financial Dashboard Report

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Project Title: Financial Analysis

Tools Used: Power BI

Introduction:

Project Objective:
     The aim of this financial dashboard is to provide actionable insights into sales, profit, and other key financial metrics across segments, countries, and products.

Dataset Description:
     The dataset contains financial data with the following columns:

- **Segment:** Channel partners, enterprise, government, midmarket, small business.
- **Country:** Canada, France, Germany, Mexico, United States of America.
- **Product:** Amarilla, Carretera, Montana, Paseo, Velo, VTT.
- **Metrics:** Units Sold, Sales, COGS, Profit, etc.
- **Time:** Date, Month, Year.

Dashboard Pages:

Page 1: Sales Overview

Focus: High-level insights into sales performance and trends to give a comprehensive view of how different segments, products, and countries contribute to the overall sales and profitability.

Sales Contribution by Segment (Donut Chart)

This chart visualizes the percentage of sales contributed by each segment (e.g., Channel Partners, Enterprise, Government, etc.), highlighting which segments generate the most revenue and where to focus efforts.

Sales by Product (Bar Chart)

The bar chart compares total sales across products like Amarilla, Carretera, and Velo, allowing easy identification of top-performing products and areas for improvement.

Monthly Trends: Total Sales and Profit (Line Chart)

This line chart tracks sales and profit trends over time, helping to identify seasonal patterns and correlations between sales and profitability, aiding in future forecasting.

Sales and Profit by Segment and Country

This table combines Segment and Country dimensions, providing a detailed breakdown of sales and profit by region and segment. It's useful for identifying high and low-performing markets.

Interactivity (Slicers)

Slicers for Segment, Country and Year allow users to filter data dynamically, providing a customized view of sales and profit performance based on specific criteria.
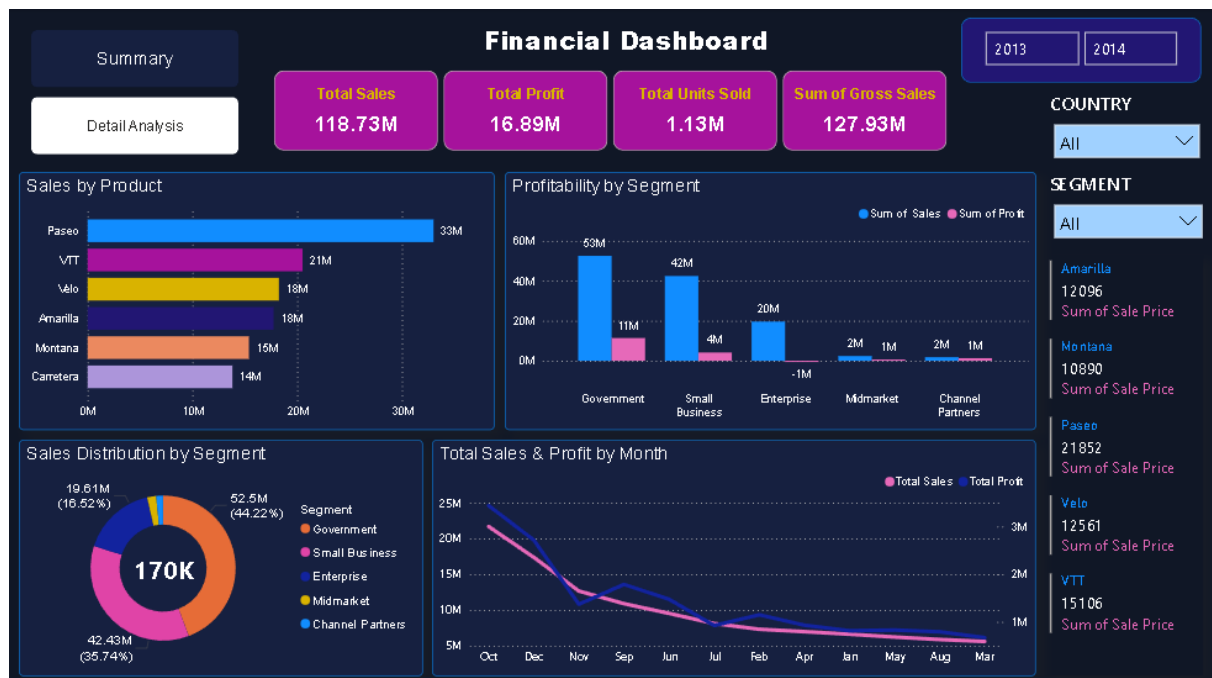
Key Metrics (Cards)

Cards display **Total Sales**, **Total Profit**, **Total Units Sold**, and **Sum of Gross Sales**, offering quick access to critical financial metrics. These cards highlight the overall performance of the business, providing at-a-glance insights into the total sales, profit, and units sold for the selected period.

- **Total Sales:** Displays the sum of all sales across the selected segment, year, and country.
- **Total Profit:** Shows the total profit generated, emphasizing profitability.
- **Total Units Sold:** Indicates the total number of units sold across all products.
- **Gross Sales:** Provides the total sales before any deductions like discounts.

Page Navigators

Page navigators are included for seamless navigation between the **Sales Overview** page and **Page 2: Detailed Analysis**. These buttons allow users to move between pages with ease, enhancing the overall user experience and enabling a deeper dive into specific data segments and insights.

Financial Dashboard

Total Sales	Total Profit	Total Units Sold	Sum of Gross Sales
118.73M	16.89M	1.13M	127.93M

Sales by Product

Product	Value
Paseo	33M
VTT	21M
Velo	18M
Amarilla	18M
Montana	15M
Carretera	14M

Profitability by Segment — Sum of Sales, Sum of Profit

Government 53M / 11M, Small Business 42M / 4M, Enterprise 20M / -1M, Midmarket 2M / 1M, Channel Partners 2M / 1M

Sales Distribution by Segment — 170K

- 52.5M (44.22%)
- 42.43M (35.74%)
- 19.61M (16.52%)

Segment
- Government
- Small Business
- Enterprise
- Midmarket
- Channel Partners

Total Sales & Profit by Month — Total Sales, Total Profit

COUNTRY: All

SEGMENT: All

Amarilla	12096 Sum of Sale Price
Montana	10890 Sum of Sale Price
Paseo	21852 Sum of Sale Price
Velo	12561 Sum of Sale Price
VTT	15106 Sum of Sale Price

Summary / Detail Analysis

2013 | 2014

Page 2: Detailed Analysis

Focus: The Detailed Analysis page provides in-depth insights into specific financial metrics, enabling a deeper understanding of profitability and performance across different dimensions.

Profitability by Segment (Bar Chart)

This bar chart visualizes profitability across various segments (e.g., Channel Partners, Enterprise), helping to identify which segments are most profitable and where cost optimization opportunities exist.

Sales Distribution by Product (Donut Chart)

This donut chart shows the percentage of total sales contributed by each product, highlighting the best-performing products and those that might need additional promotional efforts.

## Year-over-Year Comparison (Column Chart)

This column chart compares total sales and profit across years, showing year-over-year growth and trends. It helps assess long-term performance and strategic impact over time.

Sales and Profit by Discount Type (Stacked Bar Chart)

This chart breaks down sales and profit based on discount types (e.g., High, Low, None). It provides insights into how different discount strategies affect overall sales and profitability.

Dynamic Filtering (Slicers)

Slicers for Product**,** Discount, and Year allow users to filter data dynamically, refining analysis by specific product categories, discount levels, or time periods.
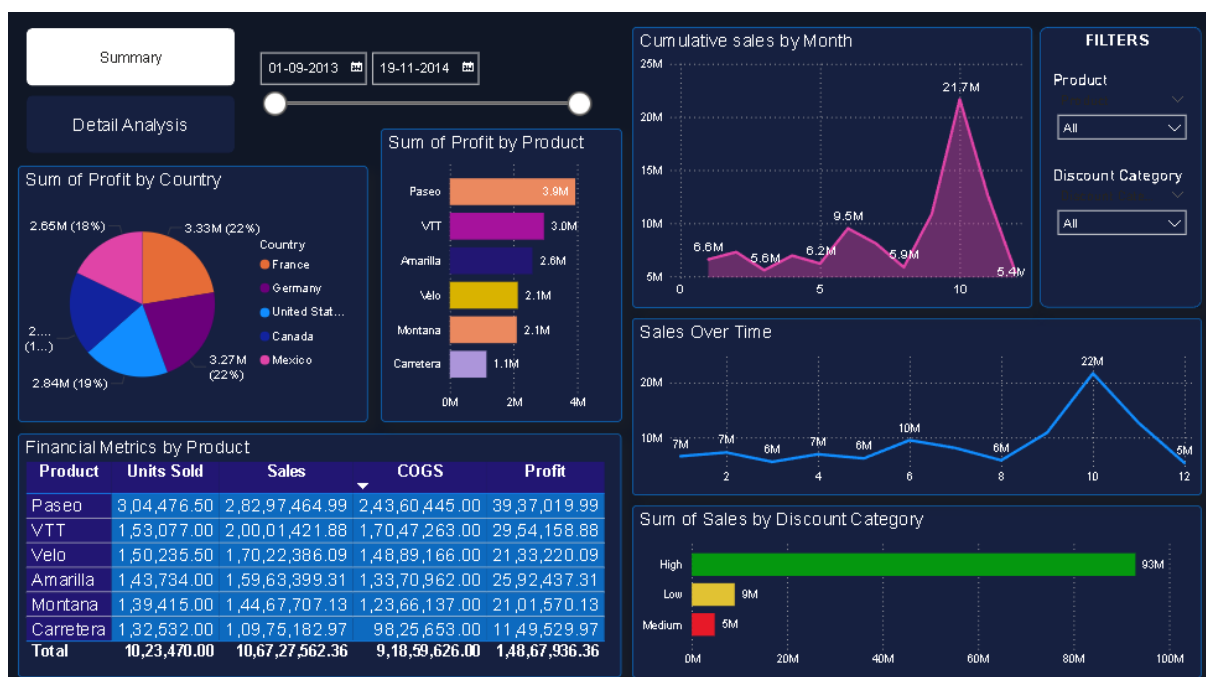
Hierarchies and Relationships

The **Sales Overview** page makes use of **hierarchies** and **relationships** to create a structured and interactive analysis of the data:

- **Hierarchies:**

  - A **Date Hierarchy** is created using the **Year**, **Month Name**, and **Month Number** columns. This allows users to drill down into specific time periods (e.g., by Year or Month) for more granular analysis of sales and profit trends.

- A **Segment Hierarchy** can be used to break down sales and profit by segment (Channel Partners, Enterprise, Government, Midmarket, Small Business) and further drill down into each segment's performance.

- **Relationships:**

  - **Product to Sales:** A one-to-many relationship connects the **Product** table to the **Sales** table, ensuring that sales values are linked to the respective products.
  - **Segment to Sales:** A relationship between the **Segment** table and the **Sales** table allows the analysis of sales performance across various business segments.
  - **Country to Sales:** A relationship between the **Country** table and the **Sales** table enables analysis of performance across different countries.
  - **Date to Sales:** The **Date** table is related to the **Sales** table, allowing for time-based analysis of sales and profit across different years and months.

DAX Functions:

Several **DAX (Data Analysis Expressions)** functions are used to calculate and measure key performance indicators (KPIs) and ensure accurate data representation:

- **Total Sales**

  Total Sales = SUM([Sales])

  This DAX function calculates the sum of the sales across the dataset, used in various visuals and cards for performance tracking.

- **Total Profit**

  Total Profit = SUM([Profit])

  This measure calculates the total profit by summing up the profit column, helping to track overall profitability.

- **Total Units Sold**

Total Units Sold = SUM([Units Sold])

This measure calculates the total number of units sold, giving an overview of sales volume.

- **Gross Sales**

Gross Sales = SUM([Gross Sales])

This function sums up the gross sales before any deductions, providing a clear picture of total sales revenue.

- **Sales by Product**

Sales by Product = SUM([Sales])

A simple measure that helps display sales across various products in bar charts or tables.

- **Profit Margin**

Profit Margin = DIVIDE([Total Profit], [Total Sales], 0)

This measure calculates the profit margin as a ratio of total profit to total sales, offering insights into profitability.

Conclusion:

The **Sales Overview** page combines interactive **visualizations**, key **metrics** (cards), and **DAX measures** to deliver a comprehensive and insightful view of sales performance. The use of **hierarchies** and **relationships** ensures that users can explore data at multiple levels, from high-level insights to detailed analyses. The inclusion of **page navigators** and **slicers** enhances the interactivity of the dashboard, providing a user-friendly experience for dynamic data exploration.