Introduction

This project focuses on analyzing sales performance data to uncover revenue trends, product performance, and regional insights using Microsoft Excel. The goal is to support data-driven decision-making by transforming raw sales data into meaningful insights through data cleaning, analysis, and interactive dashboards.

2. Business Problem

The business wants to answer the following questions:

- Which products and regions generate the highest revenue?
- How does sales performance change over time?
- Which years perform best in terms of revenue and quantity sold?
- How can stakeholders interactively explore sales data?

3. Dataset Description

The dataset contains approximately **500 rows** of sales transaction data with the following key fields:

- Order Date
- Product
- Region
- Sales Representative
- Quantity Sold
- Unit Price
- Discount
- Revenue

The original dataset contained missing values and inconsistent date formats, simulating a real-world business scenario.

4. Data Cleaning & Preparation

The following data cleaning steps were performed in Excel:

- Standardized date formats to ensure consistency
- Removed missing values by recalculating key metrics

- Recomputed revenue using quantity, unit price, and discount
- Created derived fields such as **Year** and **Month**
- Converted the dataset into an Excel Table for efficient analysis

These steps ensured the dataset was accurate, complete, and analysis-ready.

5. Analysis Approach

Pivot Tables were used to summarize and analyze the data:

- Monthly revenue trends
- Revenue by product
- Revenue by region
- Overall sales performance metrics

Key Performance Indicators (KPIs) were created to highlight:

- Total Revenue
- Total Quantity Sold
- Top sales Representative

6. Dashboard & Interactivity

An interactive Excel dashboard was built to allow users to explore the data dynamically. The dashboard includes:

- KPI cards for high-level performance overview
- Line chart showing monthly revenue trends
- Bar charts for revenue by product and region

This allows stakeholders to quickly identify patterns and drill down into specific segments.

7. Key Insights

Some insights derived from the analysis include:

- Accessories consistently outperformed other products in revenue generation.
- Revenue varies significantly across regions and was significantly higher in the North.
- Clear seasonal patterns are visible in monthly sales trends

- Interactive filtering reveals differences in performance across years with March 2023 boasting the highest recorded sales.

8. Conclusion

This project demonstrates the effective use of Microsoft Excel for end-to-end data analysis — from data cleaning to visualization and dashboard creation. The final dashboard provides actionable insights and supports informed business decisions through interactive exploration.