**Sales & Profit Dashboard**

**Project Overview**

This project demonstrates a comprehensive **Sales and Profit Dashboard** created using Microsoft Excel. It showcases end-to-end data analysis, from data preparation and cleaning to insightful visualizations. Designed for performance monitoring and strategic business insights, the dashboard allows users to interactively explore metrics such as total sales, profit trends, top customers, and regional performance.

The project reflects key concepts from **Advanced Excel for Data Analytics**, utilizing Excel’s powerful analytical tools including PivotTables, PivotCharts, Slicers, and custom charting techniques.

**Dataset Structure**

The dataset consists of retail transaction data with the following columns:

* **Order Date** — The date each order was placed
* **Month & Year** — Both columns are Extracted from Order Date for trend analysis
* **Customer Name** — Unique identifiers for customers
* **State** — Geographic location of the customer
* **Category** — Product category (e.g., Furniture, Technology)
* **Sub-Category** — Further breakdown of product types
* **Product Name** — Specific product details
* **Sales** — Monetary value of each order
* **Quantity** — Number of units sold
* **Profit** — Profit earned from each transaction

**Data Preparation & Cleaning**

* Removed duplicate records based on customer and order fields to ensure accuracy
* Extracted **Month** and **Year** from Order Date for time-series analysis
* Formatted numerical fields (Sales, Profit) with appropriate currency formats
* Ensured consistency in text fields (Category, State, etc.) using standard capitalization and trimming
* Verified data types and corrected inconsistencies

**PivotTables & Analysis Performed**

The following PivotTables were created to structure insights from the data:

* **Total Sales & Total Profit** — For quick performance snapshots
* **Profit by Year** — Tracks year-wise profit trends
* **Sales by Category** — Summarizes sales across product categories
* **Sales by State** — Highlights regional distribution of sales
* **Customer Count by Year** — Distinct customer count per year (with duplicates removed)
* **Top 5 Customers by Profit** — Ranks customers based on total profit generated
* **Monthly Sales Trends** — Aggregates sales for each month across years

**Dashboard Design**

The final dashboard brings together all insights into a professional, interactive format:

**Key Dashboard Elements:**

* **KPI Cards** for:
  + Total Sales
  + Total Profit
* **Charts & Visuals:**
  + **Profit by Year** — Bar Chart
  + **Sales by Category** — Clustered Bar Chart
  + **Sales by Month** — Line Chart
  + **Sales by State** — Filled Map (Geographic Heatmap)
  + **Top 5 Customers by Profit** — Horizontal Bar Chart
  + **Customer Count by Year** — Donut Chart
* **Interactive Slicers:**
  + **Category**
  + **Year**
  + **Month**  
    All slicers are interlinked with the charts, enabling dynamic filtering of insights.

**Key Skills Demonstrated**

* Advanced Excel Functions:
  + IF(), COUNTIF(), OR(), AVERAGE(), TEXT()
* Data Cleaning & Transformation
* PivotTable & PivotChart Creation
* Dashboard Layout & UI Design
* Interactive Slicers for Dynamic Filtering
* Time Series & Trend Analysis
* Customer Segmentation
* Geographic Sales Analysis

**Tools Used**

* **Microsoft Excel**
  + PivotTables & PivotCharts
  + Slicers & Filters
  + Conditional Formatting
  + Custom Number Formatting
  + Charts: Column, Bar, Line, Donut, Map

**Conclusion**

By completing this project, I have built a fully functional, interactive business dashboard that can be used to:

* Track sales and profit KPIs
* Explore data trends across time, region, and category
* Segment and evaluate customer performance
* Make informed decisions based on clean, visualized data

This dashboard project demonstrates practical data analysis and reporting skills aligned with real-world business intelligence requirements.