Supermarket Sales Dashboard - Overview

Introduction:
This project presents an interactive **Supermarket Sales Dashboard** built using **Power BI**.
The dashboard provides insights into **sales trends, customer behavior, branch performance,** and **product profitability**.
The dataset was **cleaned, processed, and analyzed** before visualizing **key performance indicators**.

Project Goals

1. Identify **sales trends and revenue distribution** across different branches.
2. Analyze **customer purchase behavior** based on payment methods and product preferences.
3. Evaluate **branch performance and profitability**.
4. Provide a **drill-through analysis** for detailed insights on individual branches.
5. Optimize **operational decision-making** using interactive data visualizations.

Key Features of the Dashboard

1. **Total Revenue & Profit Analysis** – Displays key financial metrics.
2. **Sales Trends Over Time** – Tracks sales growth across months and years.
3. **Branch Performance Comparison** – Compares revenue, profit, and customer ratings per branch.
4. **Product Line Performance** – Identifies best-selling and low-performing product lines.
5. **Payment Method Distribution** – Analyzes customer preferences for payment modes.
6. **Customer Rating Analysis** – Correlates customer satisfaction with sales and revenue.

7. **Drill-Through Insights** – Allows detailed exploration of each branch's performance.

Technologies Used

- **Power BI** – For data visualization and dashboard creation.
- **Python (Pandas, NumPy)** – For data preprocessing.
- **Power Query** – For data transformation.
- **DAX (Data Analysis Expressions)** – For creating custom measures.

Conclusion

This project showcases the importance of **data-driven decision-making in retail analytics**.
By leveraging **Power BI's interactive capabilities**, businesses can gain **actionable insights** into **sales performance and customer behavior**.
The dashboard serves as a **comprehensive tool for monitoring key supermarket metrics**.