

# Sales Analytics Capstone Project

End-to-End Data Analysis using Excel, Python, SQL & Power BI

# Objective

- Analyze sales and profit performance
- Identify growth trends and loss areas
- Support data-driven business decisions

# Dataset

- Superstore Sales Dataset
  - ~9,995 rows, multiple years
- Key fields: Sales, Profit, Discount, Region, Category

# Tools Used

- **Excel** – initial data review
- **Python** – EDA & trend analysis
- **SQL** – business insights & queries
- **Power BI** – interactive dashboards

# Data Cleaning

- Removed duplicate records
  - Fixed date formats
- Created calculated metrics (YoY growth, profit margin)

# Python EDA

- Sales trend over time
  - Profit trend analysis
- Discount vs profit impact

# SQL Insights

- Top products by sales and profit
- Best and worst performing regions
- Loss-making products analysis

# Power BI Dashboard

- Executive summary dashboard
  - Sales & profit trends
- Product and region performance
- Interactive slicers (Year, Region, Category)



# Key Insights

- High discounts significantly reduce profit
- Technology category has the highest margin
  - Few products drive majority of sales

# Conclusion

- Data-driven insights improve profitability