# Retail Sales Analysis & Interactive Dashboard (Excel Project)

**Objective:** Analyze monthly sales data of a retail store to identify trends, top products, high-performing regions, and create a visual dashboard.

**1. Analysis Steps**

**## Monthly Sales Analysis**

Insert a new column Month = =TEXT(B2,"mmmm")

Use a Pivot Table: Rows = Month, Values = Sum of Sales ($)

Chart: Line chart showing monthly sales trend.

**## Top Products**

Pivot Table: Rows = Product, Values = Sum of Sales ($)

Sort descending to identify top-selling products.

Chart: Bar chart of top 10 products.

**## Sales by Region**

Pivot Table: Rows = Region, Values = Sum of Sales ($) / Profit ($)

Chart: Pie chart showing sales distribution by region.

**## Profit Analysis**

Add calculated column Profit Margin % = =I2/F2*100

Conditional formatting to highlight high/low profit margins.

**## Discount Impact**

Scatter plot: X-axis = Discount (%), Y-axis = Profit ($)

Analyze how discounts affect profitability.

**##Dashboard Sheet**

Combine all charts in one sheet.

Use Slicers for filtering by Region, Category, or Month.

Add key metrics: Total Sales, Total Profit, Average Discount, Top Product.

**2. Formulas Used**

=TEXT(B2,"mmmm") → Extract month from date

=SUMIFS(Sales_Data[Sales ($)], Sales_Data[Region], "West") → Sum sales by criteria

=I2/F2*100 → Calculate profit margin

Conditional formatting rules to highlight top/bottom values

**3. Visualizations**

Line chart → Monthly Sales Trend

Bar chart → Top Products

Pie chart → Sales by Region

Scatter chart → Discount vs Profit

KPI cards → Total Sales, Total Profit, Average Discount

**4.. Extensions**

Predict next month's sales using a simple linear trend.

Compare actual sales vs target sales.

Add a Year-over-Year (YoY) comparison if you have multiple years



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