## **Dataset Overview**

The dataset typically contains sales transactions for a retail superstore. Key columns usually include:

- Order ID / Order Date unique transaction identifiers.
- **Ship Date / Ship Mode** delivery details.
- **Customer Name / Segment** buyer details.
- **Region / State / City** geographic info.
- Category / Sub-Category / Product Name product hierarchy.
- **Sales** revenue earned.
- **Quantity** number of items sold.
- **Discount** applied discount.
- **Profit** profitability after costs.

## **Key Insights You Can Derive**

#### 1. Sales Performance

- Total sales and profit across all transactions.
- Yearly/Monthly trend of sales and profit.
- High vs. low performing months.

## 2. Regional Insights

- Sales and profit by **region** (East, West, Central, South).
- Identify the **top states/cities** driving revenue.
- Regions with losses due to high discounts.

## 3. Customer Insights

- Contribution by customer segments (Consumer, Corporate, Home Office).
- Top 10 customers by revenue.
- Repeat vs. one-time customers.

#### 4. Product Performance

- Category-level performance (Furniture, Office Supplies, Technology).
- Sub-categories (e.g., Chairs, Phones, Binders) with best/worst profitability.
- Products with highest sales but lowest profit.

## 5. Discount Impact

- Correlation between **discount and profit**.
- Identifying products where discounts lead to losses.

## 6. Shipping & Operations

- Ship mode preference (Standard, Second Class, etc.).
- Delivery time analysis (Order Date vs. Ship Date).
- Cost/profit differences across shipping modes.

# **Types of Reports You Can Generate**

- 1. Executive Summary Report
  - o Total sales, total profit, average order value, top regions.
- 2. Sales Trend Report
  - o Monthly/Yearly charts with sales vs. profit.
- 3. Customer Analysis Report
  - o Customer segmentation, top spenders, churn risk.
- 4. Product & Category Analysis Report
  - o Profitability by category and sub-category.
- 5. Geographic Report
  - o Heatmap of sales/profit by state or city.

## Learning:

In corporated data analysis techniques, specializing in time series analysis, to deliver valuable insights, accurate sales forecasting, and interactive dashboard creation, driving business success.