📊 Introduction to the Dataset

The dataset used for this project is a historical Sales Data file containing transactional information from a retail company.

It includes records of customer orders placed over a specific period, capturing key business dimensions such as Order ID, Product Name, Category, Sub-Category, Sales Amount, Quantity, Discount, Profit, Customer Name, Region, and Order Date.

This data serves as a rich source for analyzing sales performance, identifying trends, and making informed business decisions.

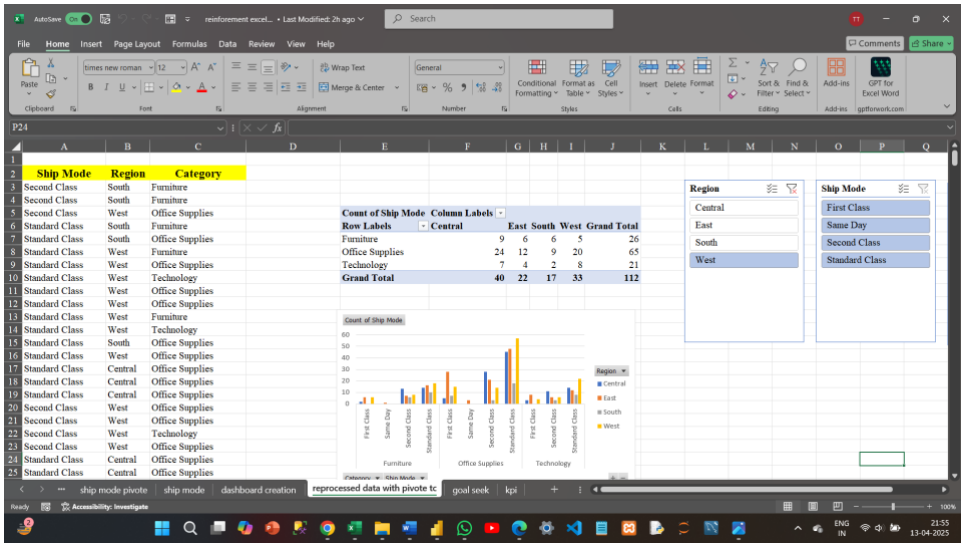
The dataset resembles a real-world scenario, making it ideal for exploring data cleaning, transformation, and visualization techniques in tools like Microsoft Excel and Power BI.

With over 500+ rows and multiple data types, it supports a comprehensive analysis of regional sales patterns, product category performance, discount impact, and profitability metrics.

Dataset Overview

The sales dataset used in this project consists of over 20,000 rows of retail transaction records. It contains detailed information about customer orders, including:

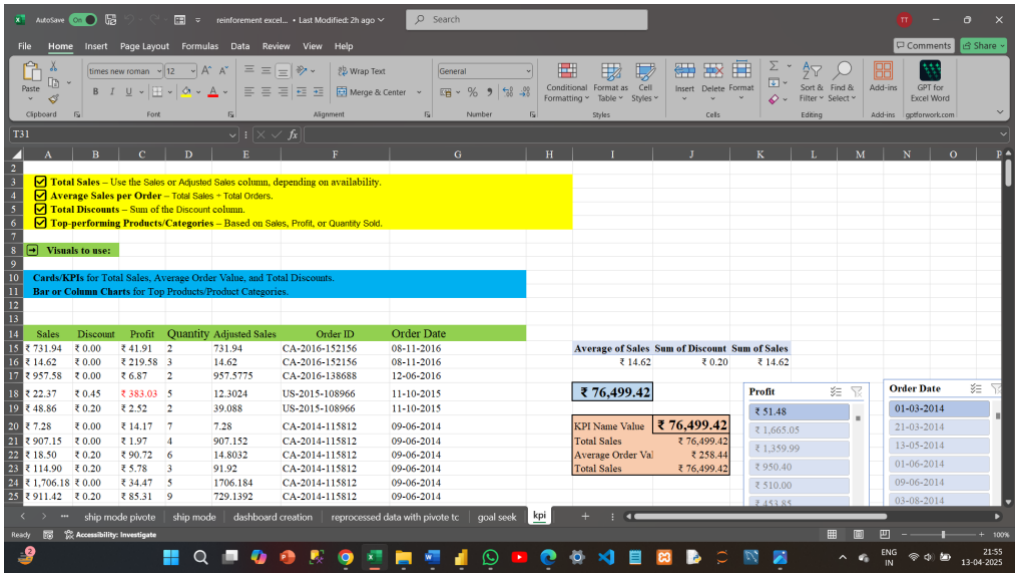
- Order ID, Order Date, Ship Date
- Product Details (Product ID, Name, Category, Sub-category)
- Customer Details (Customer ID, Name, Segment, Region)
- Sales Figures (Sales, Quantity, Discount, Profit)
- Shipping Mode



Data Cleaning Process

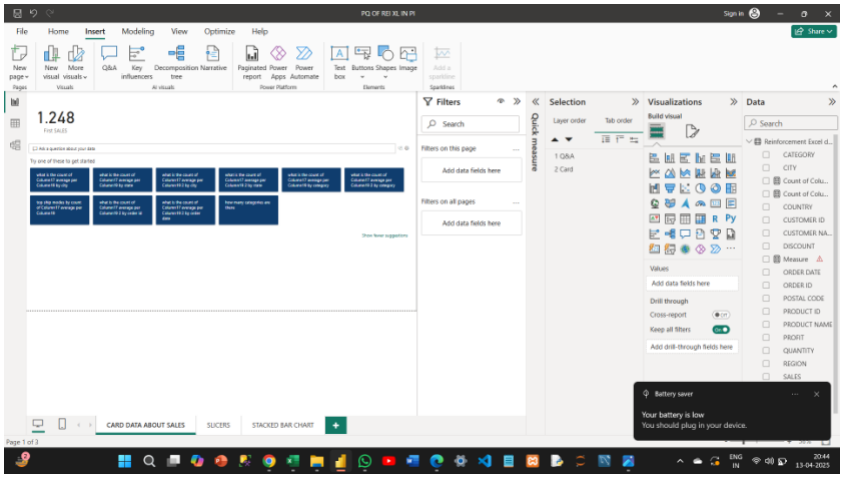
To ensure data accuracy and reliability, the following steps were carried out:

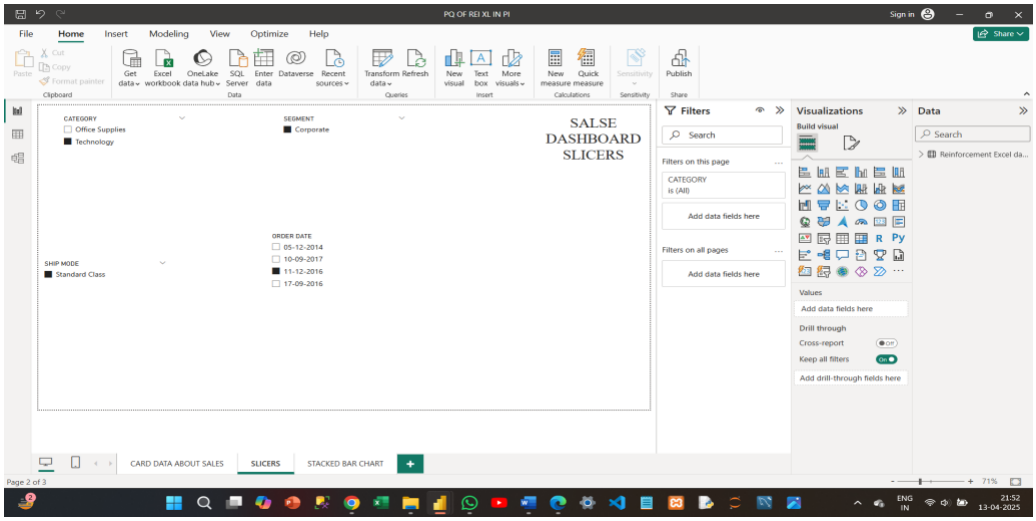
- ✅ **Removed duplicate entries and blank rows**
- ✅ **Applied data validation to Sales and Discount to flag any negative or erroneous values**
- ✅ **Used IFERROR functions to handle incorrect calculations**
- ✅ **Standardized date formats for Order Date and Ship Date (dd-mmm-yyyy)**
- ✅ **Handled outliers and ensured consistency in values like Profit and Quantity**

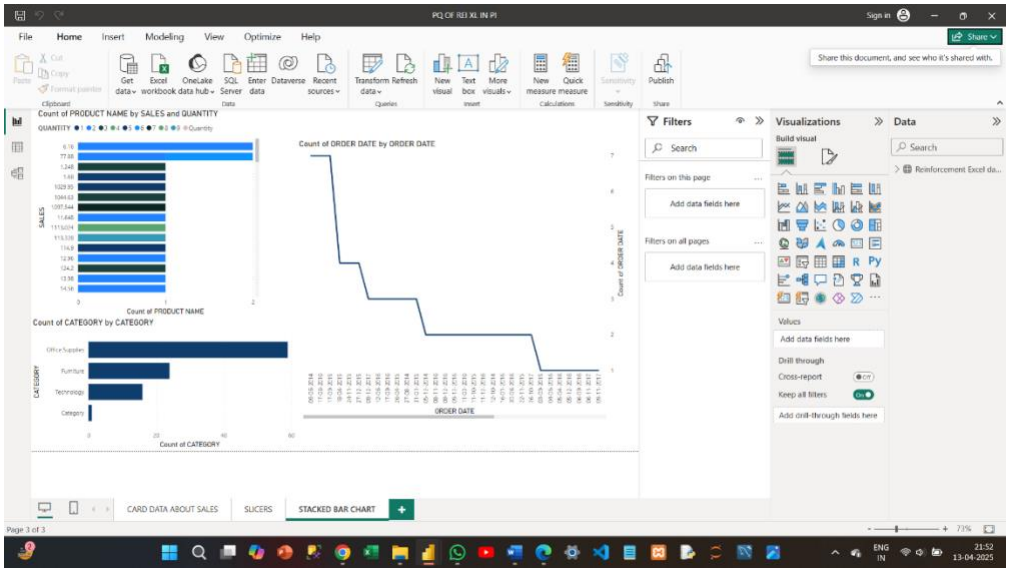


Title: Power BI Dashboard Visualization
Content:

- **Overview:** In addition to Excel, Power BI was used to create an interactive sales dashboard to visually explore data and derive insights.
- **Purpose:** Power BI offers dynamic drill-down features, cross-filtering, and user-friendly visuals, enhancing the decision-making process.
- **Features Used:**
    - Slicers for Product Category, Customer Segment, and Region
    - KPI Cards for Total Sales, Average Sales, Total Discount
    - Line Charts to visualize monthly sales trends
    - Bar Charts to compare product category performance

- 
PQ OF REI XL IN PI
1.248
CARD DATA ABOUT SALES
SLICERS
STACKED BAR CHART


PQ OF REI XL IN PI
CATEGORY
Office Supplies
Technology
SEGMENT
Corporate
SALSE
DASHBOARD
SLICERS
SHIP MODE
Standard Class
ORDER DATE
05-12-2014
10-09-2017
11-12-2016
17-09-2016
CARD DATA ABOUT SALES
SLICERS
STACKED BAR CHART
Page 2 of 3


PQ OF REI XL IN PI
Count of PRODUCT NAME by SALES and QUANTITY
Count of ORDER DATE by ORDER DATE
Count of CATEGORY by CATEGORY
CARD DATA ABOUT SALES
SLICERS
STACKED BAR CHART
Page 3 of 3

At the end, this data was analyzed to uncover key insights such as **sales trends over time**, **performance of product categories**, **impact of discounts on sales and profit**, **best-performing sales channels**, and **seasonal sales patterns**.

Additionally, an interactive **dashboard** was created to visualize these insights, providing a comprehensive view of the business's sales performance and enabling data-driven decision-making.

K.TAMILARASI