

Retail Sales Analysis Summary

Project Overview

The project analyzed a company's monthly sales data for 2023, covering 195 transactions. The main objectives were:

- Clean and validate the dataset
- Analyze revenue trends, top products, regions, and sales representatives
- Create a Power BI dashboard for easy visualization and decision-making

Data Cleaning

- Verified all records were complete; no missing values
- Converted Date to proper datetime format
- Removed duplicates
- Ensured numeric columns (Units_Sold, Unit_Price, Revenue) were correct

Key Insights

1. **Top Products:** Laptops, T-Shirts, and Notebooks generated the highest revenue and units sold.
2. **Monthly Trends:** Revenue peaked in February and dipped in May and December, suggesting seasonal variations.
3. **Region Performance:** South and North regions contributed the most revenue; West and East lag behind.
4. **Sales Representatives:** Alice and Charlie were the top performers, while others showed room for improvement.

Recommendations

- Focus marketing campaigns during low-revenue months to boost sales.
- Ensure sufficient stock for high-demand products (Laptop, T-Shirt, Notebook).
- Target sales growth in West and East regions through promotions or incentives.
- Recognize and motivate top-performing sales reps; provide training for lower performers.
- Use the interactive Power BI dashboard regularly to monitor trends and make timely decisions.

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Dashboard Overview

An interactive Power BI dashboard was created to visualize key sales metrics, including total revenue, top products, monthly trends, regional contributions, and sales rep performance. We enabled the relevant data load options in Power BI Desktop so that the dashboard updates and reflects the latest CSV data whenever the "Refresh All" button is clicked. While Power BI Service allows fully automated scheduled refreshes, in this project we used the desktop version.