

# Retail Sales Analysis

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This project analyzes retail sales data to identify trends, top products, and regional performance.

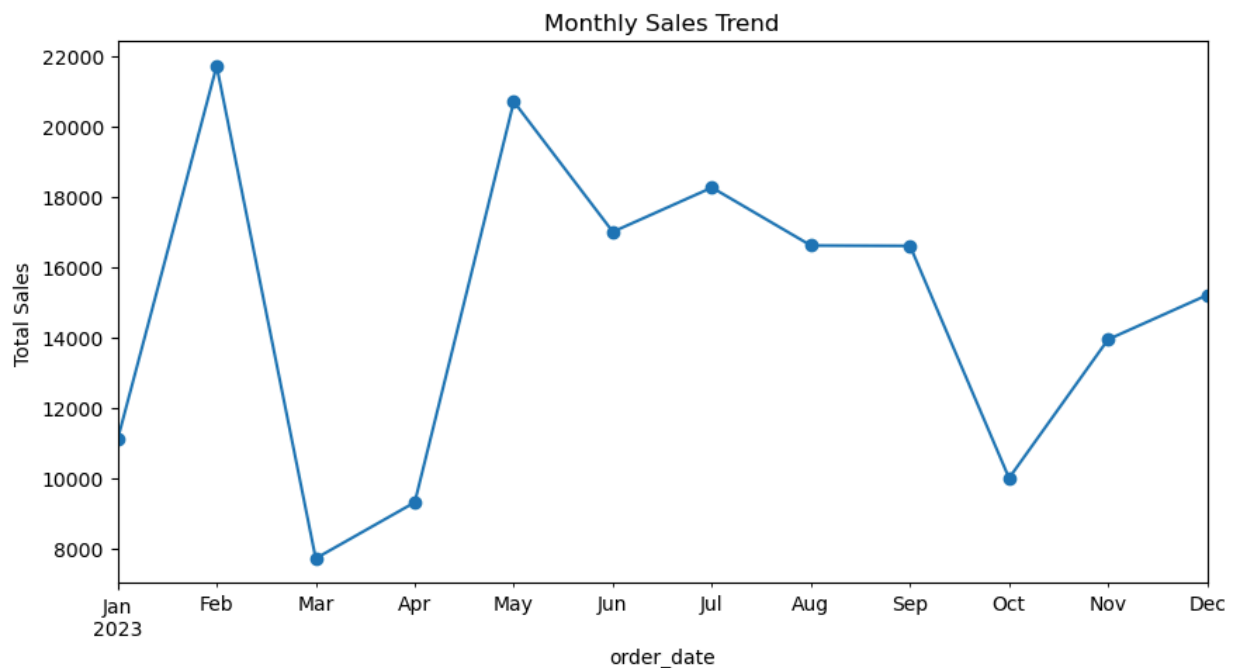
The goal is to demonstrate data analysis, visualization, and business insight skills.

## Data Overview

The dataset contains retail transactions with:

- Order date
- Customer ID
- Region
- Product category & product name
- Quantity and unit price
- Payment type

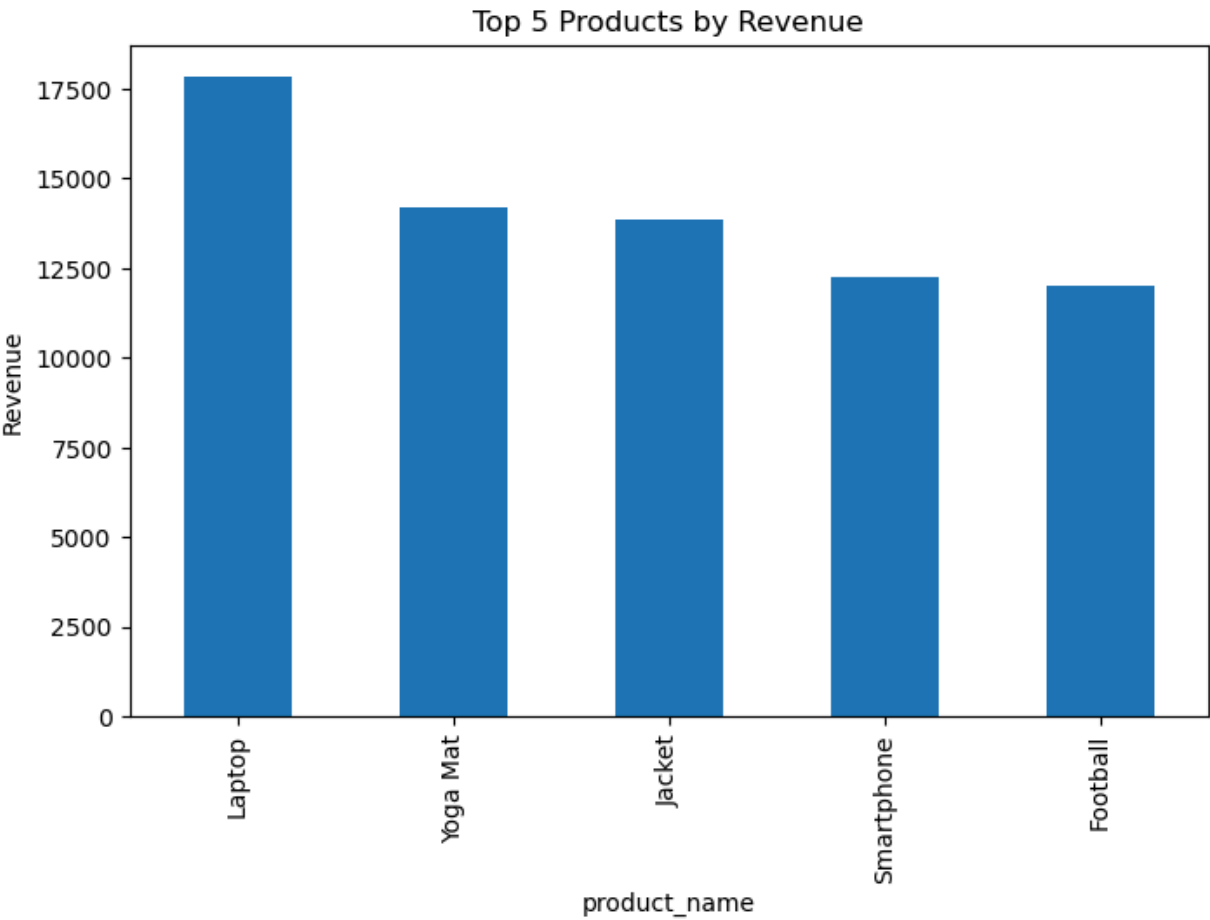
A new column, **sales**, was created as `quantity × unit_price` to calculate total revenue per order.



## Monthly Sales Insights

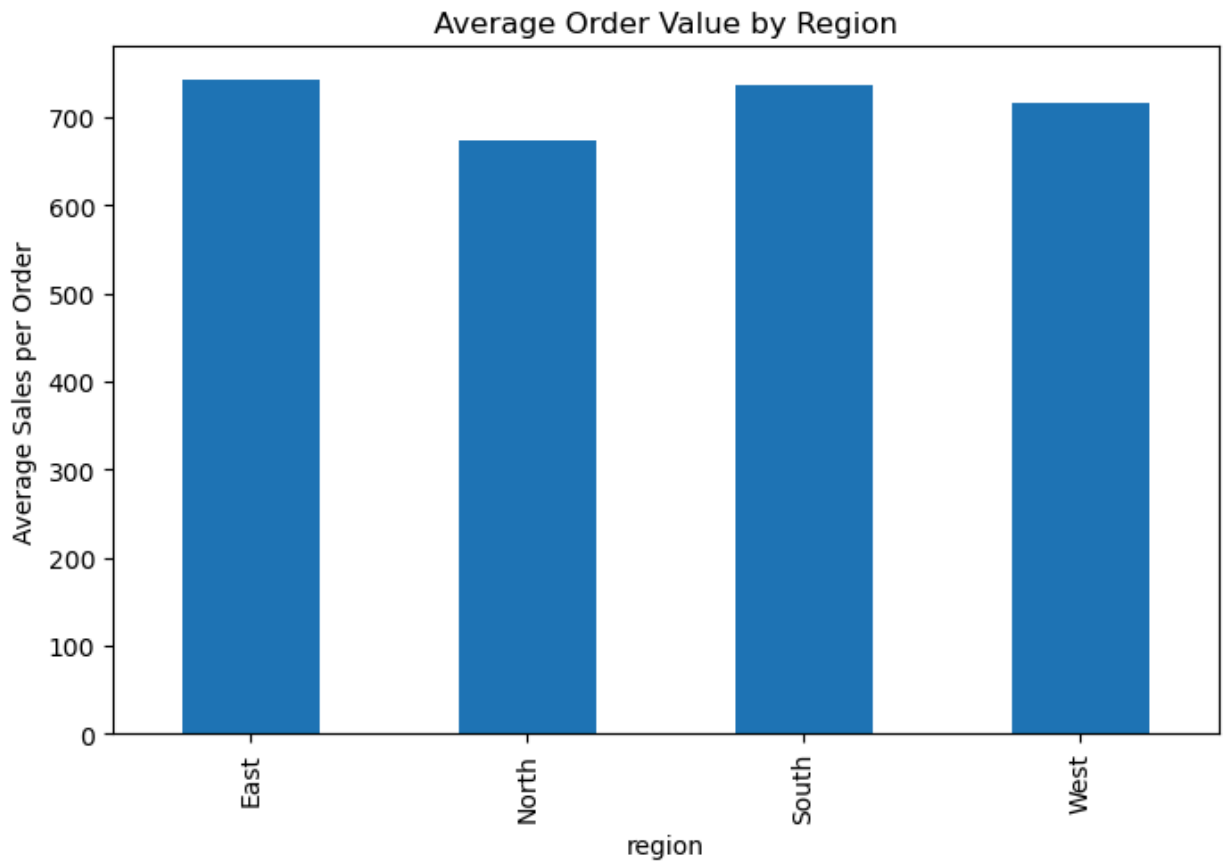
- Sales peaked in **February** at  $\approx 22,000$ , then dropped in March to  $\approx 7,700$ .
- Smaller peaks occurred in **May** and **July**.

- December also showed an uptick, likely due to holiday shopping.



## Product Insights

- Laptops** and **Yoga Mats** were the top revenue drivers.
- High-performing products are spread across categories, showing diverse demand.



## Regional Insights

- **East region** had the highest average order value ( $\approx 740$  per order).
- **South** followed closely ( $\approx 735$ ).
- **North** was the lowest at  $\approx 670$ .

## Final Business Insights

- Sales showed seasonality, peaking in February and December.
- Laptops and Yoga Mats are strong revenue contributors.
- East region customers spend the most on average, while North spends the least.

 This analysis could guide:

- Inventory planning (stock more top products).
- Marketing campaigns (focus promotions around seasonal peaks).
- Regional strategies (target East for premium products, North for growth).