Pharmaceutical Sales Data Analysis

Transforming raw sales data into meaningful insights for strategic decision-making.

Project Overview

1

Analyze Sales Trends

Identify patterns in pharmaceutical sales data.

2

Evaluate Product Performance

Assess individual drug category contributions.

3

Uncover Time-Based Patterns

Discover seasonality and daily variations.

Dataset Description

~2100 daily observations

Daily sales granularity

- Date
- Product sales (ATC codes)
- Year, Month, Weekday

WHO ATC drug classification system used for product codes.

Key Product Categories

M01AB & M01AE

Anti-inflammatory & antirheumatic drugs

N02BA & N02BE

Analgesics

N05B & N05C

Psycholeptics (Anxiolytics, Hypnotics & sedatives)

R03 & R06

Obstructive airway diseases & Antihistamines

Tools & Technologies

Python

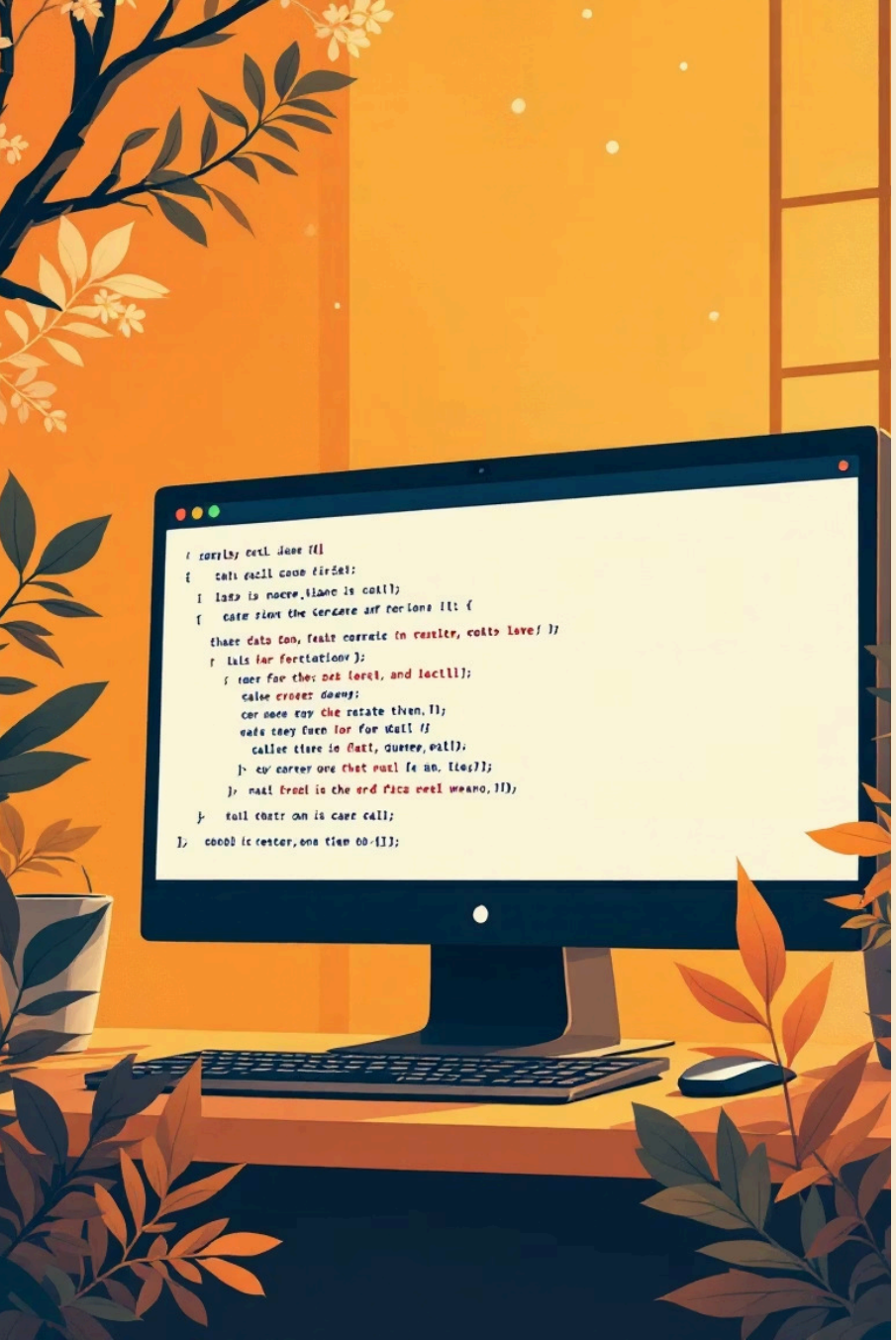
Data loading, exploration, cleaning.

SQL (PostgreSQL)

Data import, aggregation, validation.

Power BI

Data reshaping, measures, interactive dashboards.



SQL Analysis: Key Findings

1

Highest Sales Product

N05C: 63,005 total sales

2

Lowest Sales Product

N07A: 1,249 total sales

3

Peak Sales Day

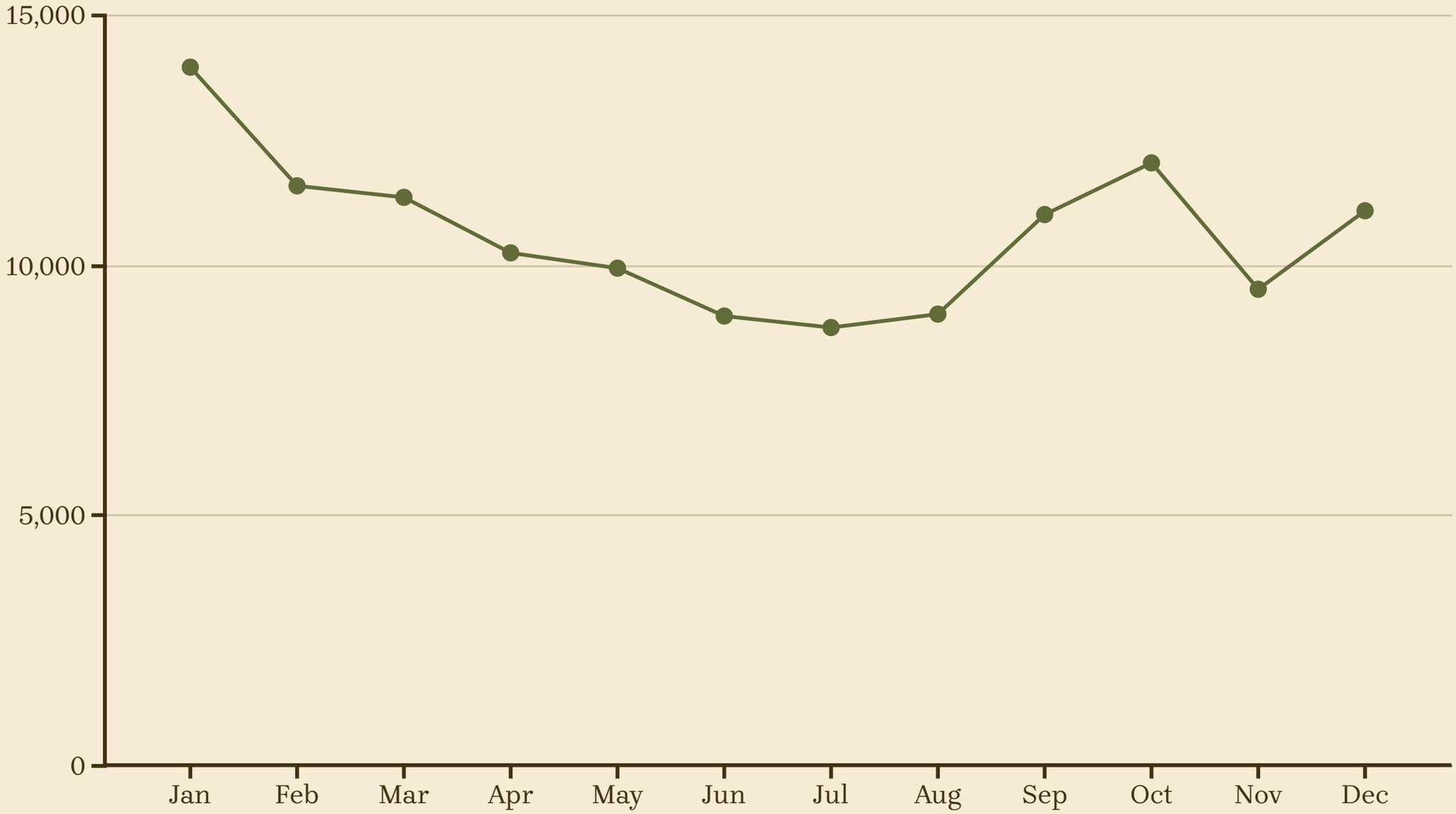
Saturday: 19,767 total sales

4

Lowest Sales Day

Thursday: 17,212 total sales

Monthly Sales Trends



Sales decline mid-year, recover towards year-end, showing clear seasonality.

Power BI Dashboard

Interactive report with key metrics, trends, and product performance.

Key Insights

Seasonal Sales Pattern

Mid-year decline, year-end recovery.

Product Concentration

Few categories drive most sales.

Weekday Variability

Uneven sales distribution across days.

Year-wise Comparison

Variations in overall performance.

Business Impact

Identify Performance

High/low-performing drug categories.

Optimize Planning

Inventory & supply chain.

Enhance Strategy

Sales force & promotions.

Data-Driven Decisions

Interactive analysis.