

# Pharmaceutical Sales & Prescription Performance Dashboard

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## Project Overview

This project is an Excel-based interactive dashboard designed to track pharmaceutical sales, prescription behavior, and regional performance.

The goal is to provide actionable insights that help in:

- Identifying top-performing drugs
- Detecting underperforming regions
- Aligning sales with prescription demand
- Understanding patient demographics and doctor specialization trends

## Objectives

- Track total sales and revenue growth trends
- Monitor prescriptions by specialization and demographics
- Compare sales performance across regions and channels
- Provide data-driven insights for pharmaceutical decision-making

## Features

- Data Cleaning: Removed duplicates, corrected formats, standardized drug names
- Pivot Tables: Summarized sales, prescriptions, and demographic insights
- Charts:
  - Line → Monthly Sales Trend
  - Bar → Top 5 Drugs by Revenue
  - Pie → Sales Channel Distribution
  - Stacked Bar → Prescriptions by Age & Gender
- Interactive Dashboard:
  - Slicers (Region, Drug Name)
  - Timeline (Date Filters)
  - Consistent formatting for professional look

## KPIs Displayed

- Total Sales & Revenue Growth
- Top 5 Drugs by Sales
- Sales by Region

- Prescription Count by Doctor Specialization
- Patient Demographics (Age & Gender)
- Sales by Channel

## Steps to Reproduce

1. Define Business Questions (e.g., Which drugs generate the most revenue? Which region leads in sales?)
2. Collect / Simulate Data → Use pharma\_data.xlsx or a similar dataset
3. Data Cleaning in Excel
4. Create Pivot Tables for analysis
5. Build Charts for visualization
6. Develop Excel Dashboard with interactivity (slicers, timelines)
7. Analyze Insights for business strategy

## Project Structure

Pharmaceutical-Dashboard/

- └─ pharma\_data.xlsx    # Dataset (simulated/real)
- └─ Pharmaceutical Project.xlsx    # Final Excel Dashboard
- └─ Pharma\_Readme.pdf    # Project Documentation

## Insights Gained

- Highlight which drugs are high revenue but low prescriptions (promotion opportunity)
- Detect regions with low sales but high prescription demand (distribution gap)
- Compare sales channels (hospital, pharmacy, online) to identify the most profitable ones

## Future Scope

- Expand to Power BI / Tableau for advanced visualization
- Automate data updates with Excel macros / Python scripts
- Add forecasting models for drug sales trends