CRYSTAL TABS PHARMACY

Project Overview

Executive Summary

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Pharmacy Sales and Inventory Analysis

Introduction

This project focuses on analyzing a pharmacy's sales, inventory, and operational data using SQL for data extraction and Power BI for visualizations. The goal is to identify key metrics such as sales performance, profit trends, and inventory levels, enabling data-driven decision-making.

Tools Used

- MySQL: Data extraction and querying.
- Power BI: Visualization of insights and performance tracking.

Outcome

The dashboard delivers actionable insights on sales performance, inventory status, and staff contributions, helping to optimize operations and improve overall profitability.

Sales Performance

2.71M The total sales over the reporting period, indicating healthy revenue generation.
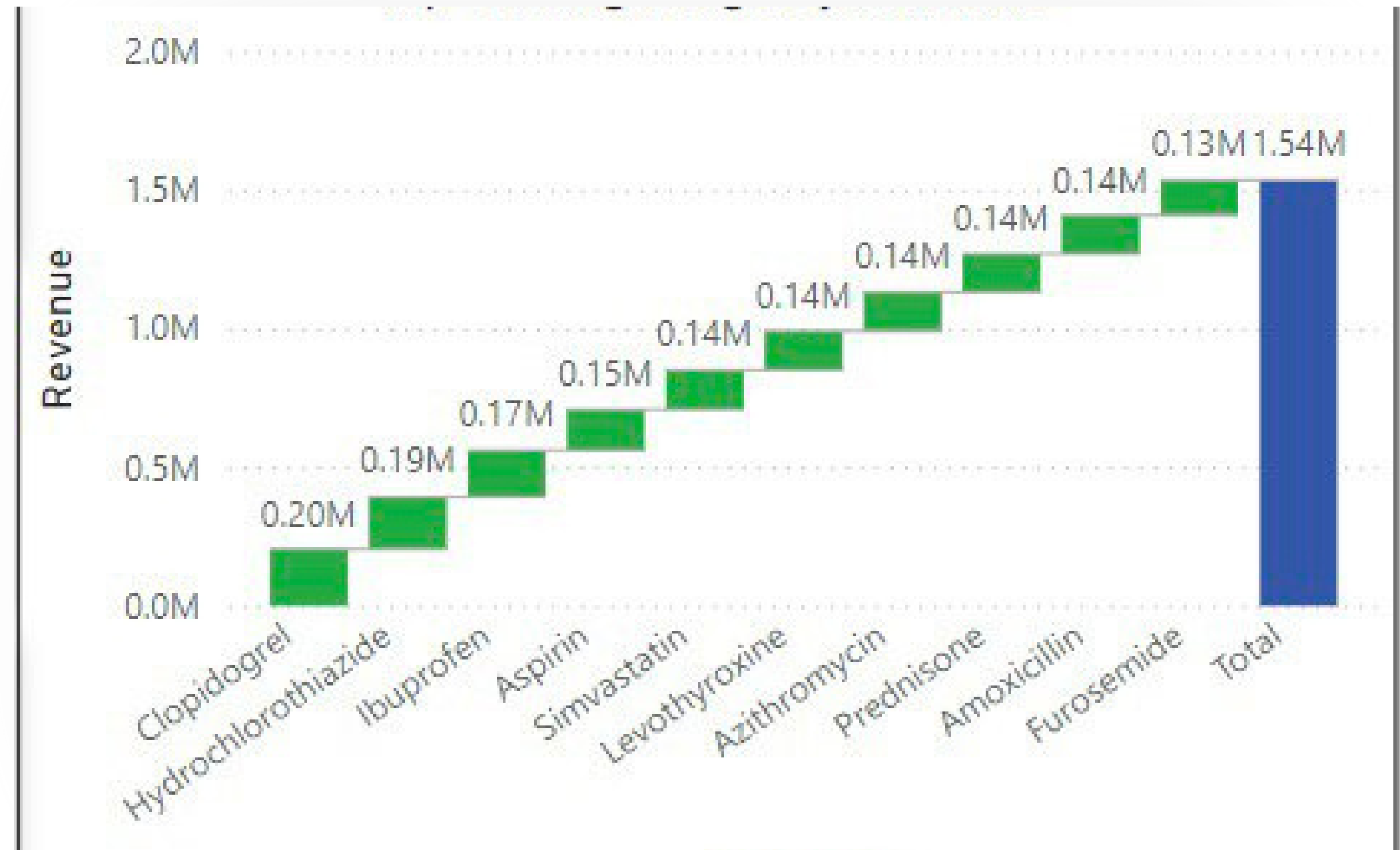
200 The Total orders processed

13.6k An average spending of customers

Top -Selling Drugs

About Data

- The leading drugs by revenue include:
  - Clopidogrel: **0.20M**
  - Hydrochlorothiazide: **0.19M**
  - Ibuprofen: **0.17M**
  - Aspirin: **0.15M**

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Monthly Sales Trend

About Data

- Revenue peaked in May (**0.27M**) and showed steady performance across most months.
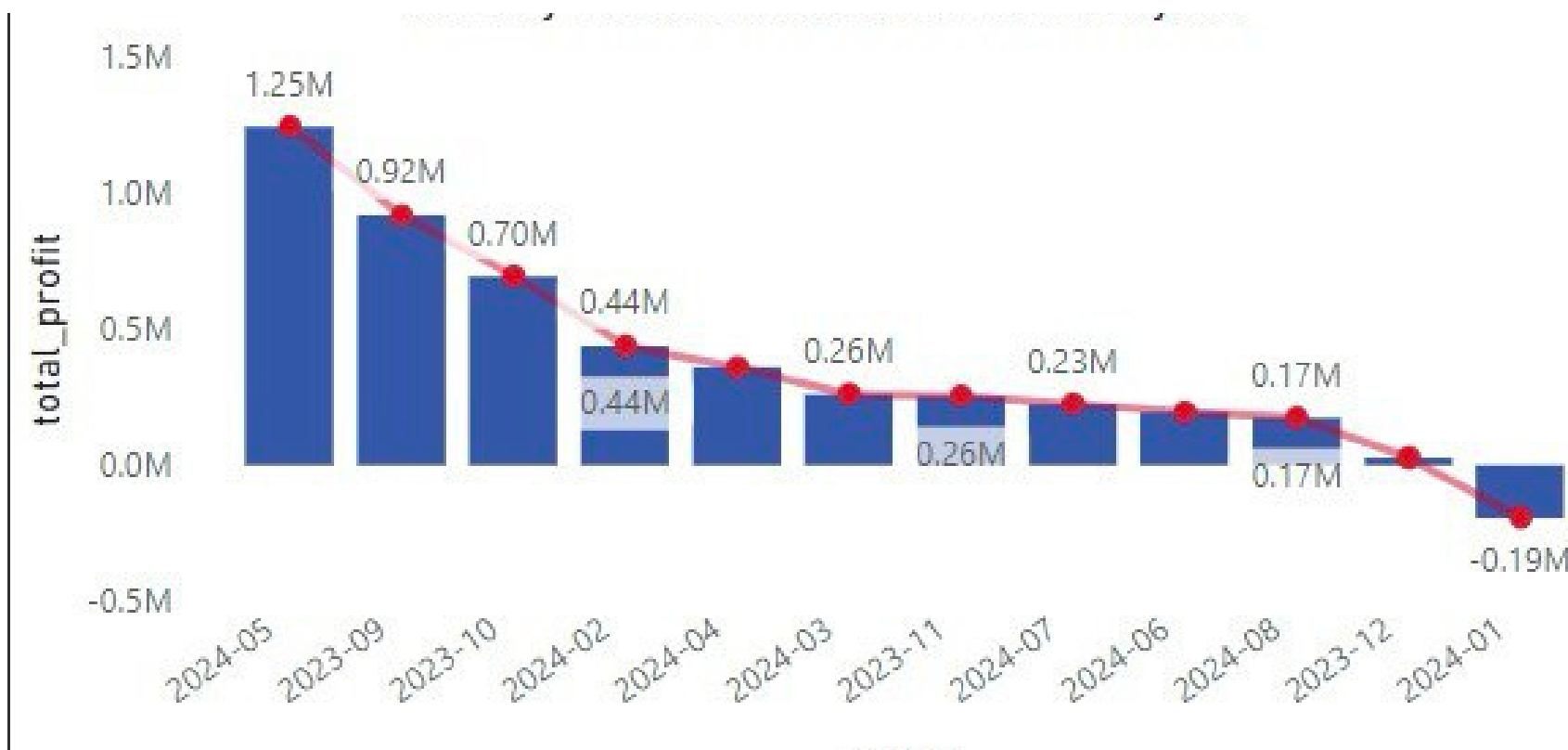
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Monthly Revenue in the last year

Profit peaked at **1.25M** in May *2024*, with fluctuations throughout the year. A notable dip of **-0.19M** occurred in November *2023*, highlighting potential issues such as increased costs or returns.

Average Yearly Revenue

- Revenue has outperformed expectations, exceeding the **9.74K** goal by **263.18%.**

Profit Analysis

Inventory Management

About Data

Days Until Expiry: Several critical drugs, such as Albuterol and Lisinopril, are nearing their expiry (**9** and **11** days, respectively). Monitoring and strategic sales are necessary to avoid losses.

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Days until expiry

Drug name		Days
Albuterol	◆	9
Lisinopril	◆	11
Pantoprazole	◆	11
Furosemide	◆	13
Aspirin	◆	17
Levothyroxine	◆	17
Trazodone	◆	17
Amoxicillin	▲	20
Ibuprofen	▲	20
Ciprofloxacin	▲	22
Lorazepam	▲	22
Prednisone	▲	23
Losartan	▲	25
Simvastatin	▲	27
Amlodipine	▲	29
Warfarin	●	33
Meloxicam	●	40

Inventory Management

Top Suppliers by Quantity

Key suppliers include Waters and Sons (**3.3K** units supplied) and Smith, Powell and Johnson (**2.8K** units).

Stock Depletion

On average, drugs take **948** days to deplete, which could suggest overstocking or low turnover rates for certain drugs.

Total Stock Remaining

The pharmacy has a stock level of **497K**, suggesting a healthy inventory for upcoming months.
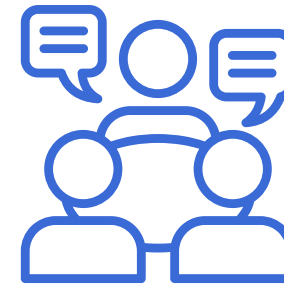
Staff Performance

About Data

The highest selling staff members by revenue are:
- ○ Dominique Thompson: **316.03K**
- ○ Sierra Campbell: **304.89K**
- ○ Jamie Sullivan: **285.44K**

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100%

Dominique Thompson	£316.03K
Sierra Campbell	£304.89K
Julie Jensen	£297.01K
Jamie Sullivan	£285.44K
Janet Freeman	£270.44K
David Thompson	£267.56K
Cathy Stone	£262.17K
Stephanie Smith	£252.52K
Michelle Miles	£247.14K
Jasmine Ayala	£204.94K

64.8%

Customer and Staff Analysis

Customer Distribution

The gender distribution of customers is almost even, with **50.6%** female and **49.4%** male.

Sales by Drug Type and Staff

Staff sales primarily consist of **Ointments**, **Suspensions**, **Syrups**, and **Tablets**, with most staff handling an even mix of drug types.

Sales by Drug type

Suspensions account for the highest sales, contributing approximately **27.17%** of total sales, closely followed by syrups at **26.92%**. This can likely be attributed to the high demand among young mothers

crystal tabs

Challenges

- Connecting Power BI to MySQL Server: One significant challenge encountered was the difficulty in directly connecting Power BI to the MySQL server. This was mitigated by exporting data from MySQL to CSV format and then importing it into Power BI for visualization.

Suggestions for Additional Queries and Insights

Promotional Effectiveness

Track how discounts and promotions influence sales over time.

Seasonal Trends

Analyze if certain drugs are sold more during specific seasons or months.

Sales Conversion Rate

Calculate how many customers complete a purchase versus how many visit the store or website.

Thank You