

# Small Business Sales & Inventory Analysis

SQL + Power BI Project  
Data Analytics Portfolio Project

# Business Problem & Objective

Using data to support better business decisions

- The business wants to understand overall sales performance
  - Identify top-performing products and categories
  - Analyze customer behavior and repeat purchases
  - Monitor inventory and stock availability

# Dataset Overview & Analysis Approach

- **Products table:** Product ID, Product Name, Category, Cost Price, Selling Price, Stock Quantity
- **Customers table:** Customer ID, Customer Name, City, Gender
- **Orders table:** Order ID, Order Date, Customer ID
- **Order\_Details table:** Order ID, Product ID, Quantity
- The dataset was first cleaned and structured in **Excel**.
- **SQL** was used to analyze sales, product performance, customer behavior, and inventory levels.
- Key business questions were answered using SQL queries.
- Insights were then visualized using **Power BI dashboards** for better understanding.

# Power BI Dashboard- Sales & Performance Overview

## Sales & Revenue Overview

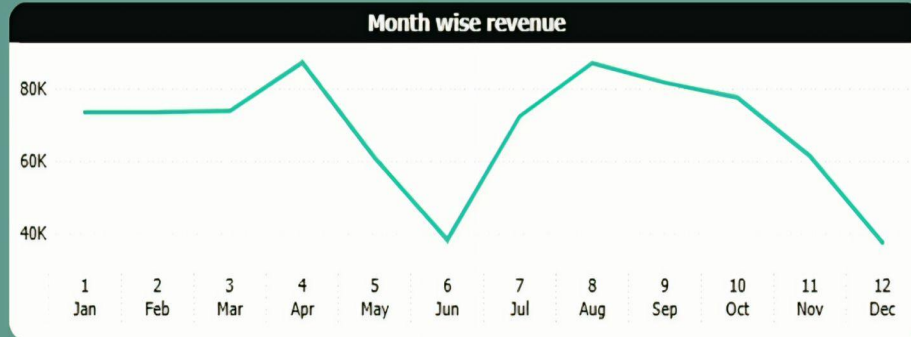
Total\_revenue  
**1.21M**

Total revenue shows overall  
business performance

Total\_order  
**350**

Average\_order\_value  
**2.36K**

Average order value indicates  
customer spending  
behaviour



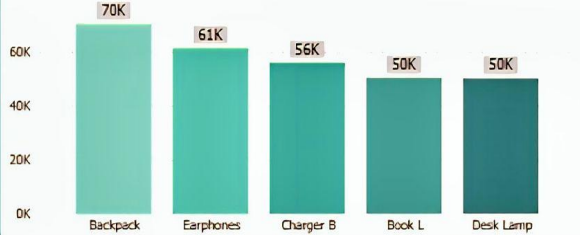
Monthly trend highlights seasonal sales patterns

- Created an interactive dashboard in **Power BI**
- Analyzed Sales, Products, Customers & Inventory
- Enabled insights using filters and slicers for better analysis

# Product Performance Analysis

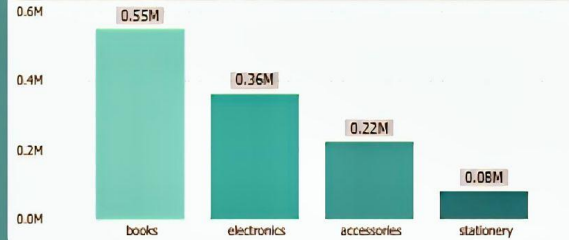
## Product performance Analysis

### Top 5 products by revenue



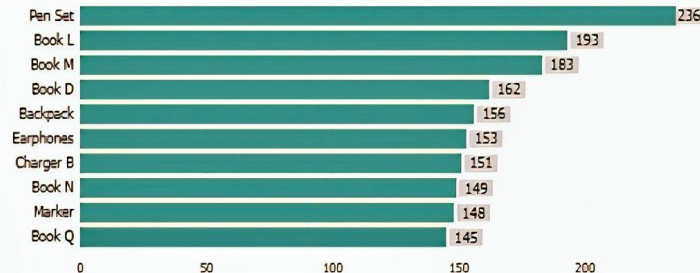
Top 5 products contribute major share of total revenue

### Category wise revenue



Category wise sales show which categories perform best.

### Quantity wise Best Selling Product

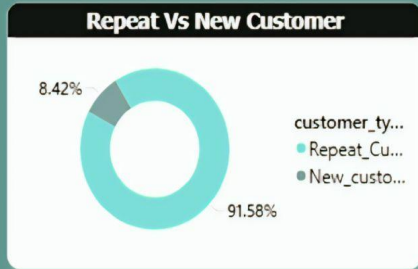


Best-selling product is identified based on quantity sold.

- Analyzed total revenue and total orders
- Identified month-wise sales trend
- Calculated average order value for business insights

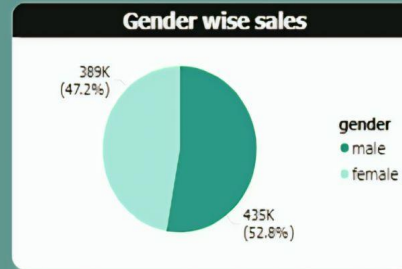
# Customer Analysis

## Customer Insights



Customer base includes both new and repeat buyers.

Total\_customer  
**100**



Gender-wise sales highlight customer purchasing patterns.



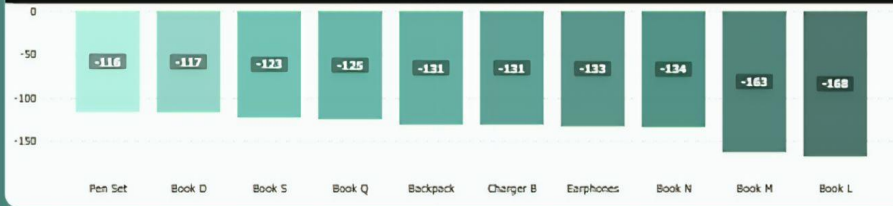
City-wise distribution shows key customer locations

- Analyzed customer behavior and purchasing patterns
- Identified high-value and repeat customers
- Helped in understanding which customer segments contribute most to sales

# Inventory & Stock Analysis

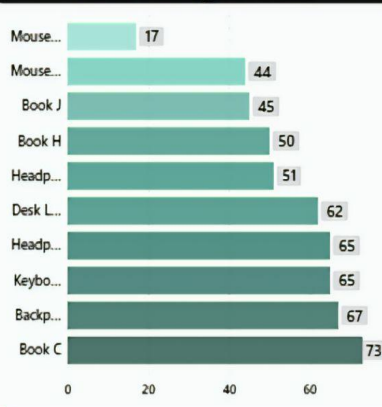
## Inventory & Stock Analysis

### Low Stock Products



Low-stock products need immediate attention.

### Slow Moving Products



Slow-moving products indicate weak demand.

### Remaining stocks

product_name	Remaining_stock
Book L	-168
Book M	-163
Book N	-134
Earphones	-133
Backpack	-131
Charger B	-131
Book Q	-125
Book S	-123
Book D	-117
Pen Set	-116
Total	-1341

Remaining stock help monitor inventory levels.

Negative values indicates stock sold more than available inventory.

- Analyzed stock levels across products
- Identified low-stock and high-stock items
- Helped in maintaining optimal inventory and avoiding stock-out situations

# Conclusion & Recommendations

## Conclusion

- Completed end-to-end analysis using **Excel, SQL, and Power BI**
- Built interactive dashboards to analyze **sales, products, customers, and inventory**
- Transformed raw data into **meaningful business insights**

## Recommendations

- Focus on **high-performing products** to increase revenue
- Improve **inventory planning** to avoid over-stock and stock-out situations
- Target **high-value customers** using customer analysis insights