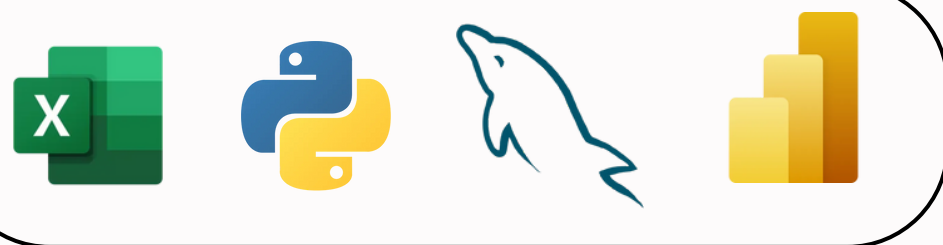


Customer Order Behavior Analysis

PRESENTER : PARVES AHAMED R



Overview

SOURCE	Walmart Customer Purchase Dataset
DATASET	~50,000 transactions covering customer purchases
COLUMNS	Customer_ID, Age, Gender, City, Category, Product, Rating, etc.
DESCRIPTION	Rich data for segmentation, product trends, discount impact

Goals

How can we analyze customer purchasing behavior to uncover spending patterns, identify high-performing segments, and optimize product, pricing, and promotion strategies for better business outcomes?

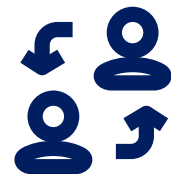
01



Objective 01

Analyze customer purchasing behavior from retail data

02



Objective 02

Understand trends across gender, age, repeat vs new customers

03



Objective 03

Find top-performing product categories and cities

04



Objective 04

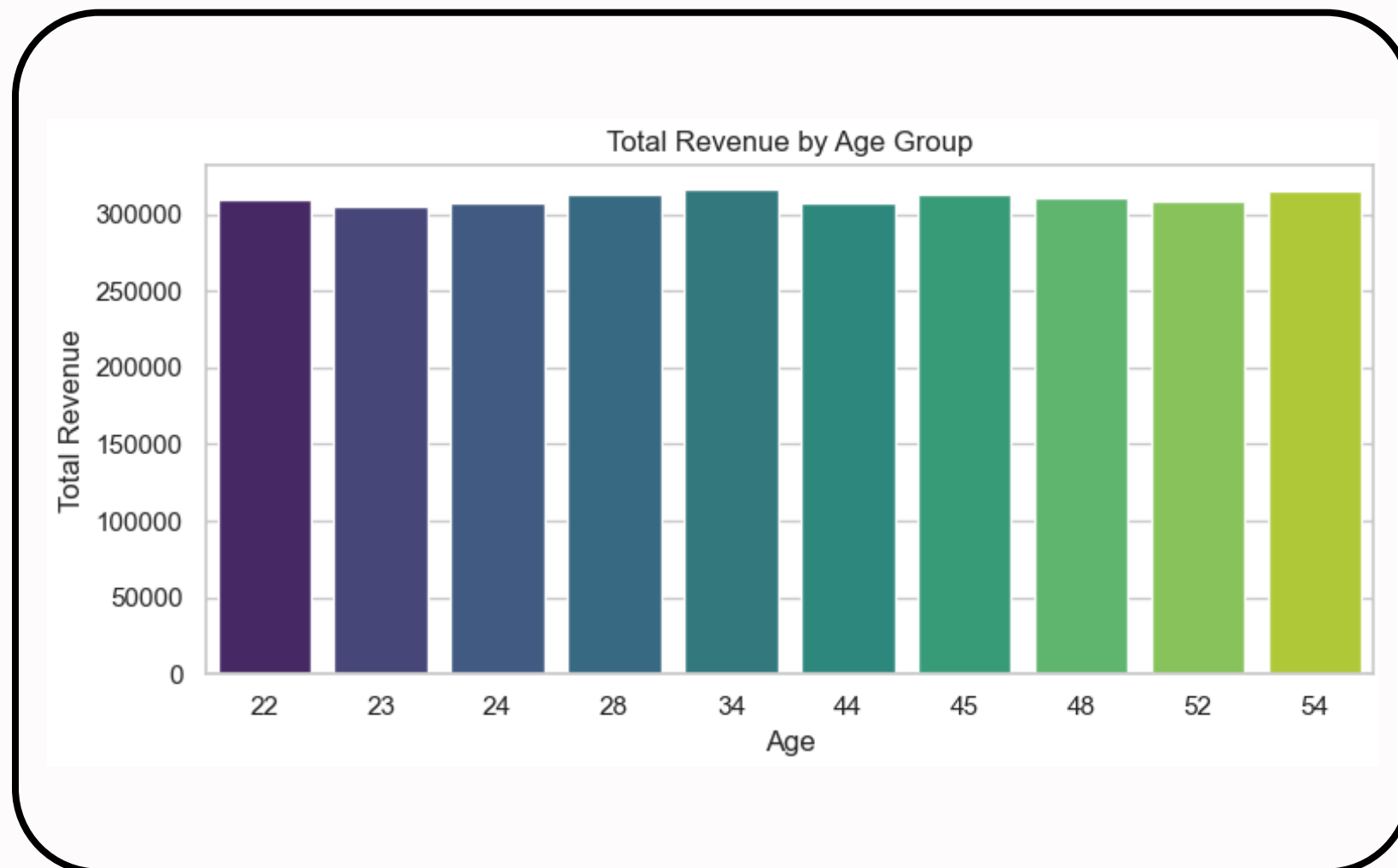
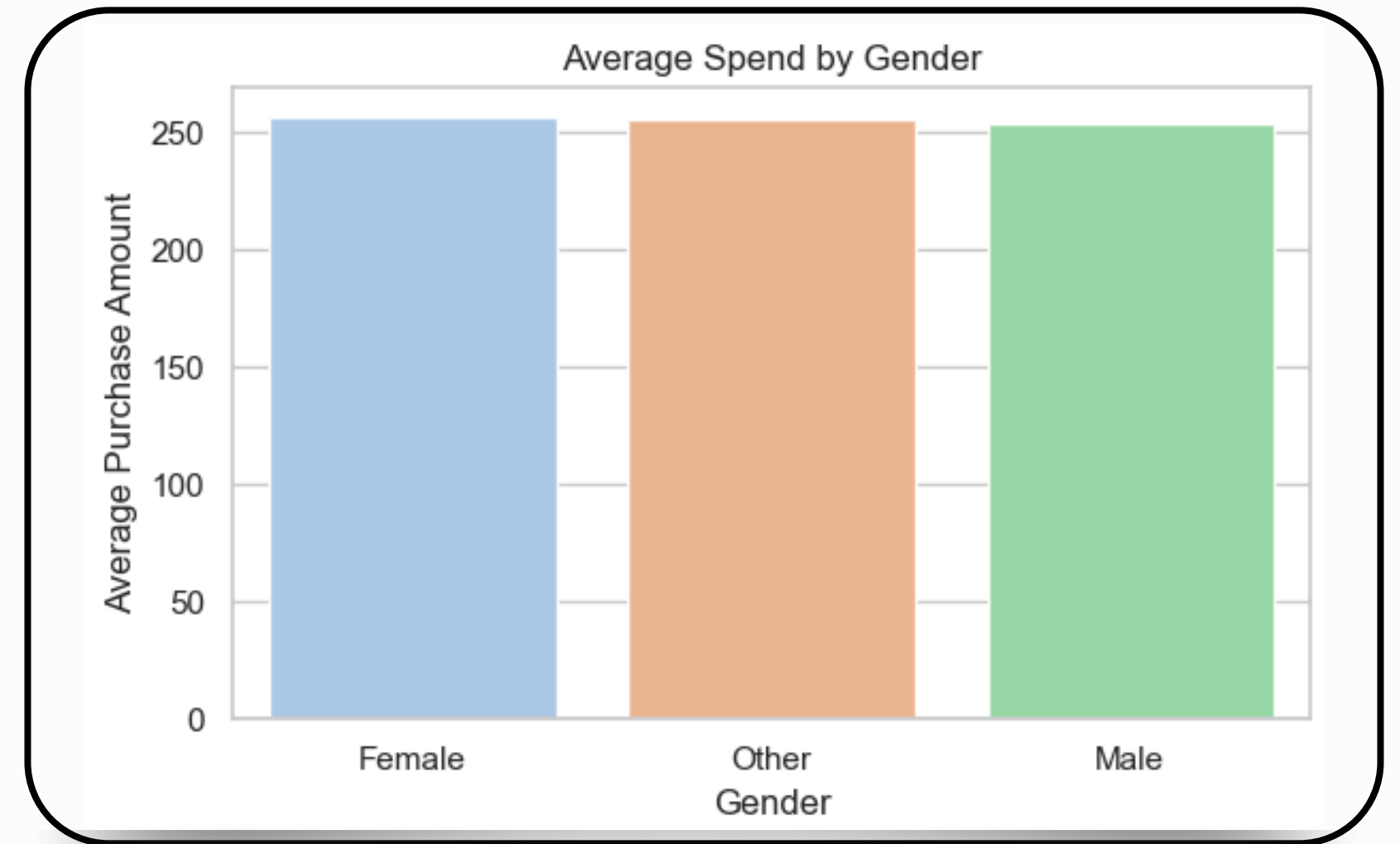
Provide data-driven recommendations for business growth

Exploratory Data Analysis (Python)

Conducted comprehensive exploratory data analysis using Python. Cleaned and analyzed customer purchase data with Pandas, visualized key trends using Seaborn and Matplotlib, and extracted actionable insights on spending behavior, category revenue, and discount impact.

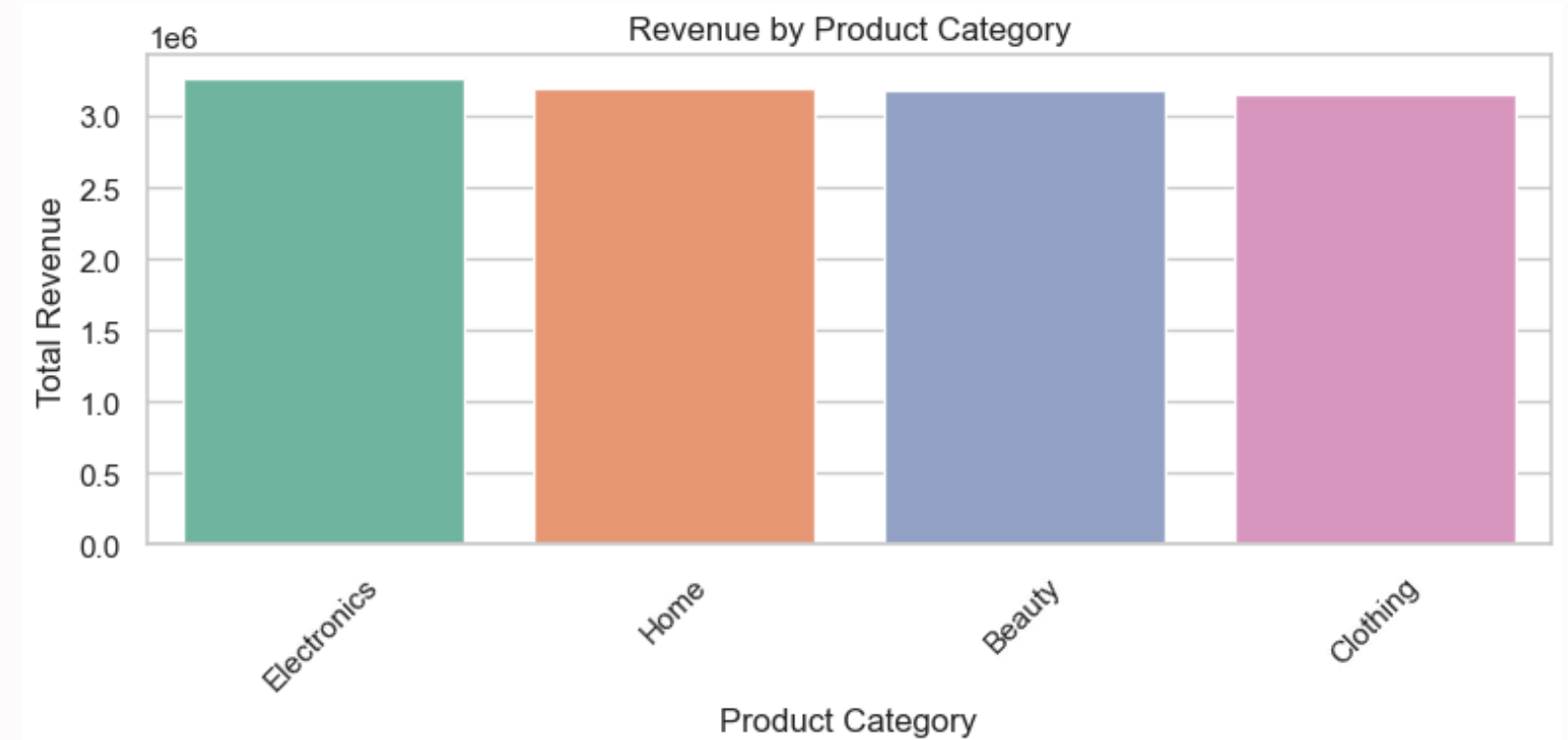
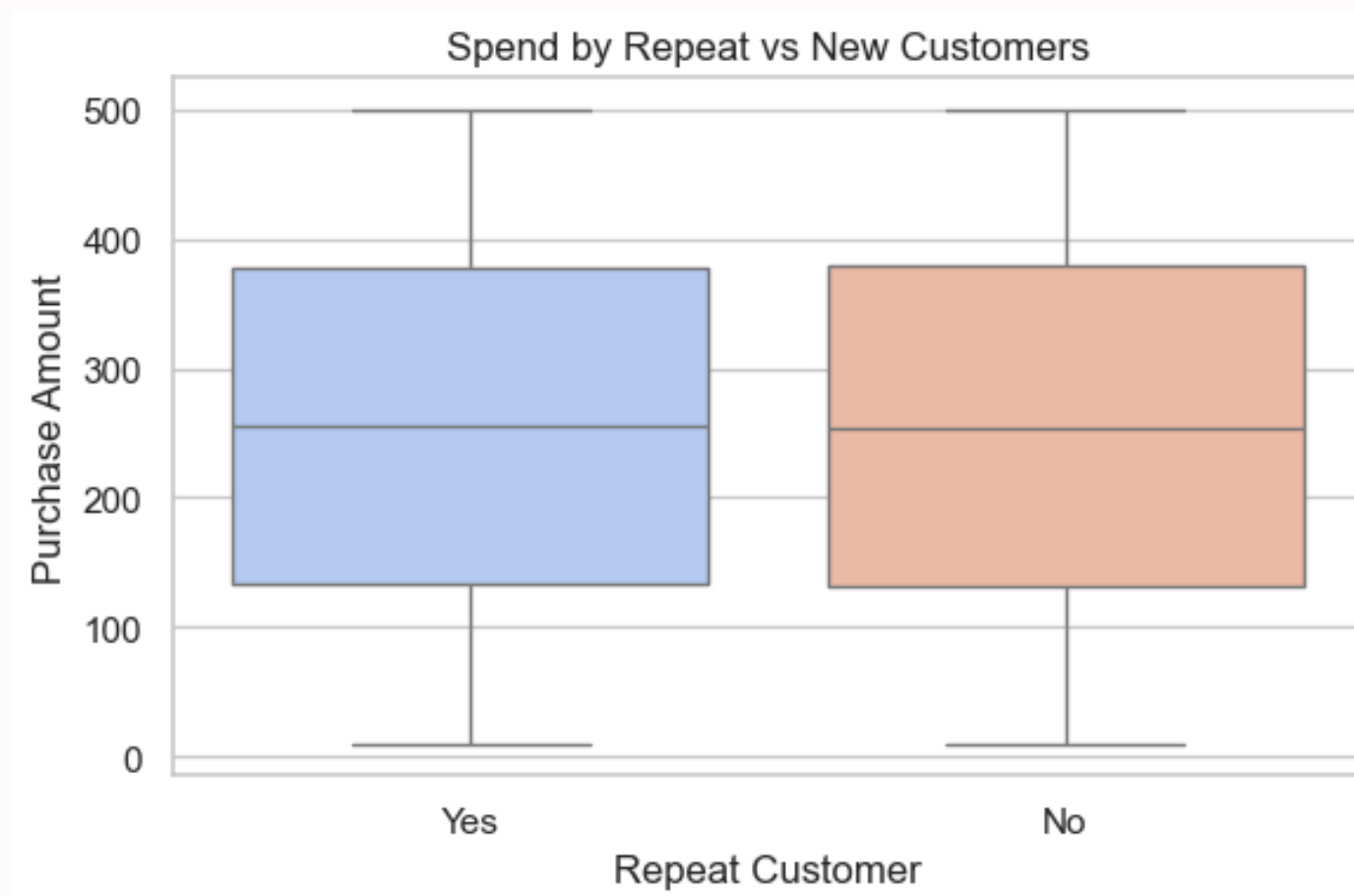


Average spend:
Female (\$256.38) >
Male (\$254.23)



Top spending
ages: 34, 54, 45

Highest revenue
from **Electronics &
Home**



Repeat customers
spend slightly
more

SQL Insights – MySQL Workbench

Performed data-driven queries using MySQL to extract insights on revenue trends, customer segmentation, and product category performance. Supported analytical findings from Python and Power BI, ensuring data consistency and backend validation.



Business Queries Used In MYSQL Workbench

Average Spend by Gender	Average Spend: Repeat vs New Customers
Top 5 Age Groups by Total Spend	Total Revenue by Product Category
Are Discounts Affecting Ratings?	Monthly Revenue Trend
Top 5 Cities by Revenue	Payment Method Preference
Average Rating by Product Category	Top 5 Best-Selling Products (by quantity)

Interactive Dashboard – Power BI

Built an interactive Power BI dashboard to visualize customer behavior and sales trends. Included KPIs, slicers, and insightful charts for age, category, gender, and repeat purchases — delivering a clean, executive-level dashboard experience inspired by leading design standards.



Interactive Dashboard – Power BI



Key Insights & Business Recommendations

INSIGHTS	RECOMMENDATIONS
Female and repeat customers spend slightly more — a potential loyalty opportunity	Introduce loyalty programs for repeat buyers
Age groups 34, 54, and 45 drive majority revenue — ideal for targeted marketing	Target top 3 age groups with personalized offers
Electronics is the highest revenue-generating category — deserves inventory focus	Prioritize Electronics and Home category inventory
Discounts show no meaningful effect on ratings — optimize discount strategy	Rethink blanket discounts — focus on value-based offers

Learnings & Skills Applied

Technical Skills

- Data Cleaning & Analysis (Pandas, NumPy, Seaborn, Matplotlib)
- SQL Querying & Aggregation (MySQL Workbench)
- Dashboard Creation & KPI Design (Power BI)

Business & Analytical Thinking

- Framed business questions and translated them into insights
- Derived customer segments and actionable recommendations
- Interpreted multi-tool results to build consistent strategy



THANK YOU

For watching this presentation

PARVES AHAMED

-  74488 40984
-  parves.analyst@gmail.com
-  parves-analyst.framer.ai
-  Tamil Nadu, India