Project Overview

UrbanCart Retail Analytics

This project focuses on analyzing transactional data from **UrbanCart**, a multi-city online retail platform, using **SQL** to extract actionable business insights. The objective of the analysis is to understand customer behavior, order patterns, revenue performance, payment preferences, and product-level dynamics to support data-driven business decisions. A total of **25 real-world business questions** were answered using structured SQL queries, covering both descriptive and advanced analytical use cases.

The analysis begins with **customer and order fundamentals**, identifying total orders, unique customers, repeat purchase behavior, city-wise demand, and monthly order trends. These insights establish a strong baseline of platform activity, revealing high repeat customer engagement, city-level performance differences, and seasonal fluctuations in order volume. This foundational layer helps UrbanCart understand where demand is strongest and how customer activity evolves over time.

The project then moves into **revenue and product performance analysis**, calculating total revenue, category-wise and product-wise revenue contributions, average order value (AOV), and basket size. This section highlights key revenue drivers such as high-performing product categories and top-selling products, while also identifying products at risk of stock-out due to high sales volume and low inventory. These insights directly support pricing, inventory planning, and promotional strategies.

In the **customer behavior and segmentation** section, the analysis identifies high-value customers, purchasing patterns by gender and city, and changes in customer behavior over time since account creation. This helps UrbanCart distinguish between premium and price-sensitive markets, understand demographic preferences, and identify opportunities for personalization, retention campaigns, and lifecycle-based marketing.

The **payment and order flow analysis** examines payment method popularity, the relationship between payment methods and order completion or cancellation, city-wise payment preferences, and the association between payment methods and order value or basket size. These findings reveal strong reliance on Cash on Delivery alongside growing adoption of digital wallets, offering clear direction for improving checkout efficiency and reducing order cancellations.

Finally, the **advanced product and basket analysis** explores product pairings, bundle opportunities, cross-selling anchors, and high-value product combinations. By identifying frequently bought-together items and product pairs that drive higher order values, the project provides concrete recommendations for bundle creation, recommendation systems, and cross-sell strategies aimed at increasing average basket size and overall revenue.

Overall, this project demonstrates the practical application of SQL for end-to-end business analytics, combining technical query writing with meaningful business interpretation. The insights generated can help UrbanCart optimize marketing strategies, improve customer retention, enhance product recommendations, and maximize revenue growth through data-driven decision-making.