



Gloria Jean's Coffees

Sales Analysis with SQL

By Zarin Tasnim



Gloria Jean's Coffees

- Gloria Jean's Coffees is a specialty coffee chain with multiple cities as markets
- Datasets used: city, customers, products, sales tables with demographics and transactions
- Tools: PostgreSQL for analysis, pgAdmin for querying





Objective

The business aims to expand by opening three coffee shops in Bangladesh's top three major cities. Since its launch in January 2023, the company has successfully sold its products online and received an overwhelmingly positive response in several cities. As a data analyst, your task is to analyze the sales data and provide insights to recommend the top three cities for this expansion.



Business Problems

- Q1. Market Size Estimation – Estimated Coffee Drinkers (25% of population)
- How large is the potential customer base in each city based on population data?
- Q2. Revenue Breakdown by City (Total, Average per Customer)
- Which cities generate the most revenue, and what is the average revenue per customer?
- Q3. Product Profitability (Assume Price = Revenue, Cost = 60% of Price)
- Which coffee products bring the highest estimated profit considering assumed cost margins?

Business Problems

- Q4. Customer Lifetime Value (CLV)
- Who are the most valuable customers by city in terms of total and average spend?
- Q5. Monthly Revenue Trend per City
- How does revenue fluctuate monthly by city, and where are growth opportunities?
- Q6. Customer Churn Risk — Last Purchase > 90 Days Ago
- Which customers haven't purchased in over 90 days and may be at risk of churn?

Business Problems

- Q7. Most Active Customers by Rating Submitted (Quality vs Quantity)
- How do customer ratings vary, and who are the most engaged customers?
- Q8. Rent-to-Revenue Efficiency
- How efficiently is rent being converted into revenue across cities?
- Q9. City Sales Penetration (Customers vs Estimated Market)
- What percentage of the estimated coffee drinking population is actually purchasing?

Business Problems

- Q10. Top Performing Cities – Strategic Market Comparison
- Which top cities should be prioritized based on revenue, customer base, rent, and market size?
- Q11. Ratings Distribution – Product Quality Feedback
- What products have the highest average customer rating and volume?
- Q12. Order Volume by Day of Week – Operational Planning
- Which days of the week see the highest order volumes?

Business Problems

- Q13. Revenue Volatility – Std Dev of Monthly Revenue
- Which cities show the most volatility in monthly revenue, indicating risk or seasonality?
- Q14. Hidden Underperformers – Cities with High Population but Low Penetration and Revenue
- Which cities are failing to convert their market potential into actual revenue or customer base?
- Q15. Silent Cities – Cities with Customers but No Recent Sales
- Where do we have a presence but no current traction?



Business Problems

- Q16. Customer Acquisition Velocity – Track customer growth over time to detect acceleration or stagnation.
- How Fast Are We Gaining New Customers?
- Q.17 Repeat Purchase Behavior – One-Timers vs Repeat Buyers
- What proportion of customers are loyal repeat buyers vs one-time buyers?
- Q.18 Find products most frequently bought again by the same customer.
- Which Products Drive Repeat Business?



Business Problems

- Q19. Underutilized Products — Sold but Never Rated
- Which products are being sold but not getting any ratings at all?
- Q20. Best ROI Cities — Revenue Relative to Number of Sales
- Where are customers spending more per visit?

Reports & Analysis

- Revenue Forecast Report – 3-Month Projection
- Customer Segmentation Report – RFM Analysis
- Final Executive Report Query

Recommendations & Reasons

- City 1: Dhaka
 - 1. Largest estimated coffee-drinking population at approximately 7.7 million – a strong indicator of market potential.
 - 2. High total number of customers (68), reflecting solid customer reach and brand visibility.
 - 3. Rent per customer is reasonably efficient at 330, supporting scalable operations.
 - 4. Shows consistent revenue month-to-month with moderate volatility – stable growth market.
 - 5. Recommend deeper engagement through loyalty rewards and targeted digital ads to capitalize on existing market.
- City 2: Faridpur
 - 1. Lowest average rent per customer, indicating excellent cost-to-revenue efficiency.
 - 2. Generates the highest total revenue, suggesting strong customer spending patterns.
 - 3. High average revenue per customer – customers spend more per visit.
 - 4. Highest revenue per rent unit, showing exceptional operational efficiency.
 - 5. Suggest sustaining product diversity and introducing premium offerings to increase average order value.

Recommendations & Reasons

- City 3: Sylhet
 - 1. Highest total customers (69), confirming strong penetration and awareness.
 - 2. Very low rent per customer at 156, enabling profitable expansion.
 - 3. Average sales per customer is strong (~11.6k), showing valuable customer base.
 - 4. Opportunity to strengthen customer retention via feedback loops and weekday promotions.
 - 5. Suggest increasing digital presence and promotional campaigns, especially on low-traffic days.
- Additional Recommendations:
 - – Explore underperforming cities with low penetration but high potential market size.
 - – Use churn report to contact inactive customers (>90 days) with email campaigns or limited-time offers.
 - – Invest in top-rated products from ratings report and bundle them with low performers.
 - – Optimize staff and stock planning based on order trends from day-of-week insights.
 - – Track revenue volatility to better manage cash flow and marketing allocation.