

## Repository Description

This repository presents a comprehensive data analysis project that delves into the sales data of Balaji, a local fast-food restaurant. The dataset, obtained from Kaggle, contains 1,000 rows and 10 columns, offering rich insights into various facets of the restaurant's transactions.

The primary goal of this analysis is to answer the following key questions:

- 1. Sales Variation by Time of Day:** How do sales differ across various times of the day (Morning, Afternoon, Evening, Night, Midnight)? Which part of the day generates the highest revenue?
- 2. Item Distribution Based on Sales:** What is the distribution of items based on sales? Which items are the top-sellers in terms of quantity and revenue?
- 3. Preferred Payment Methods:** What are the most popular modes of bill payment among customers?
- 4. Sales Trends by Day of the Week:** How do sales vary across different days of the week? Which day experiences the highest sales volume? Are there any noteworthy patterns or trends in sales on specific weekdays?
- 5. Monthly Sales Revenue:** What is the total sales revenue for each month? How do sales fluctuate month by month? Are there any seasonal patterns or peak months for sales?
- 6. Gender-based Sales Differences:** Is there a gender-based difference in the total sales generated by customers? Do male or female customers contribute more to the overall sales revenue? Are there significant differences in the purchasing habits or preferences between male and female customers?
- 7. Sales Patterns by Month and Day of the Week:** How do sales vary based on the combination of Month and Day of the Week? Are there any specific months and days that consistently show higher or lower sales? Can we identify any recurring patterns or anomalies in sales when considering both factors together?

The dataset has undergone thorough cleaning and preprocessing to ensure data integrity, addressing any duplicates or missing values. It includes columns such as `order_id`, `date`, `item_name`, `item_type`, `item_price`, `quantity`, `transaction_amount`, `transaction_type`, `received_by`, and `time_of_sale`. It's

important to note that the 'transaction\_amount' column represents the total transaction amount, calculated by multiplying 'item\_price' and 'quantity' for each item in an order.

This project features an interactive dashboard built using various elements in Excel, enabling users to effortlessly navigate and extract valuable insights from the data.

**Dataset Last updated: March 31, 2023**