Executive Summary: Zomato Data Analysis Project

This project focuses on analyzing Zomato data to gain insights into restaurant types, customer preferences, and rating patterns. Using Python libraries like pandas, numpy, and seaborn, the project employs data cleaning, visualization, and statistical methods to make data-driven conclusions. The aim is to inform restaurant owners and Zomato on optimizing menu offerings, operational strategies, and customer engagement.

1. Importing Libraries

Key Python libraries such as pandas, numpy, seaborn, and matplotlib are utilized for data manipulation, analysis, and visualization. These libraries provide the foundation for conducting descriptive and exploratory analysis on the Zomato dataset. They enable efficient handling of large data sets and allow for the creation of insightful plots.

2. Data Wrangling and Cleaning

The dataset is cleaned by converting the 'rate' column to an appropriate data type for accurate analysis. This step ensures consistency and reliability of the data, especially in deriving meaningful insights from restaurant ratings. Proper data formatting is crucial for reducing errors in subsequent analysis steps.

3. Restaurant Type Analysis

The analysis shows that dining restaurants dominate the Zomato platform, both in terms of number and customer votes. Dining restaurants receive the highest engagement, with most ratings falling between 3.5 to 4. This suggests a solid customer base for dining services and provides guidance for focusing business strategies on this type of restaurant.

4. Average Order Spending by Couples

Data shows that couples generally spend around 300 INR per order, which should guide menu pricing strategies. Restaurants can optimize their offerings to meet this average price point, potentially boosting customer satisfaction and profitability. This information is vital for designing value-based menu items that cater to a significant portion of the clientele.

5. Mode of Ratings and Customer Preferences

The project reveals that online ordering garners the highest ratings, especially for cafes. Conversely, dining restaurants see more offline engagement, indicating customers' preference for in-person dining experiences. This highlights the need for restaurants to diversify their ordering modes, with cafes focusing more on online engagement and restaurants emphasizing their offline presence.

Conclusion

The analysis uncovers significant insights into the behavior of Zomato users, particularly in the areas of restaurant type preference, spending habits, and order modes. These findings can help restaurants optimize their offerings and marketing strategies, while Zomato can use these insights to enhance platform functionality and user satisfaction.