Zomato Data Analysis

The primary goal of this project was to analyze Zomato's restaurant dataset to gain insights into customer preferences, restaurant performance, and market trends. The analysis was focused on answering six key business questions and creating meaningful visualizations to support data-driven decisions.

BY - KARTIK

Methodology

Data Collection & Import–
- Used the Zomato dataset containing restaurant details such as name, location, rating, cuisines, cost, and delivery options.
- Imported the dataset into Python for analysis using libraries like Pandas, NumPy, Matplotlib, and Seaborn.

Data Cleaning & Preparation–
- Handled missing values, duplicates, and inconsistent entries (e.g., cost ranges, location names).
- Standardized text fields such as cuisines and locality names for consistency.
- Converted categorical columns into usable formats for analysis.

Exploratory Data Analysis (EDA)–
- Generated summary statistics to understand distribution of costs, ratings, and cuisines.
- Created visualizations (histograms, bar charts, pie charts, scatter plots, heatmaps) to explore patterns and trends.
- Applied grouping and aggregation techniques to answers.

Questions To Be Solved-

1. What type of restaurant do the majority of customers order from?
2. How many votes has each type of restaurant received from customers?
3. What are the ratings that the majority of restaurants have received?
4. Zomato has observed that most couples order most of their food online. What is their average spending on each order?
5. Which mode (online or offline) has received the maximum rating?
6. Which type of restaurant received more offline orders, so that Zomato can provide those customers with some good offers?
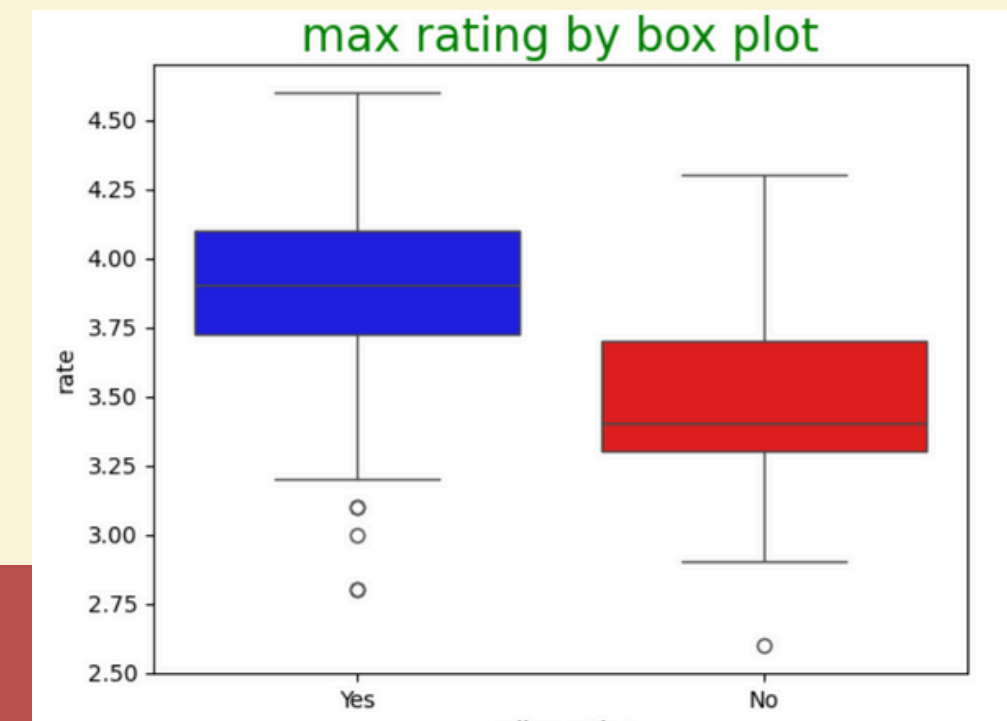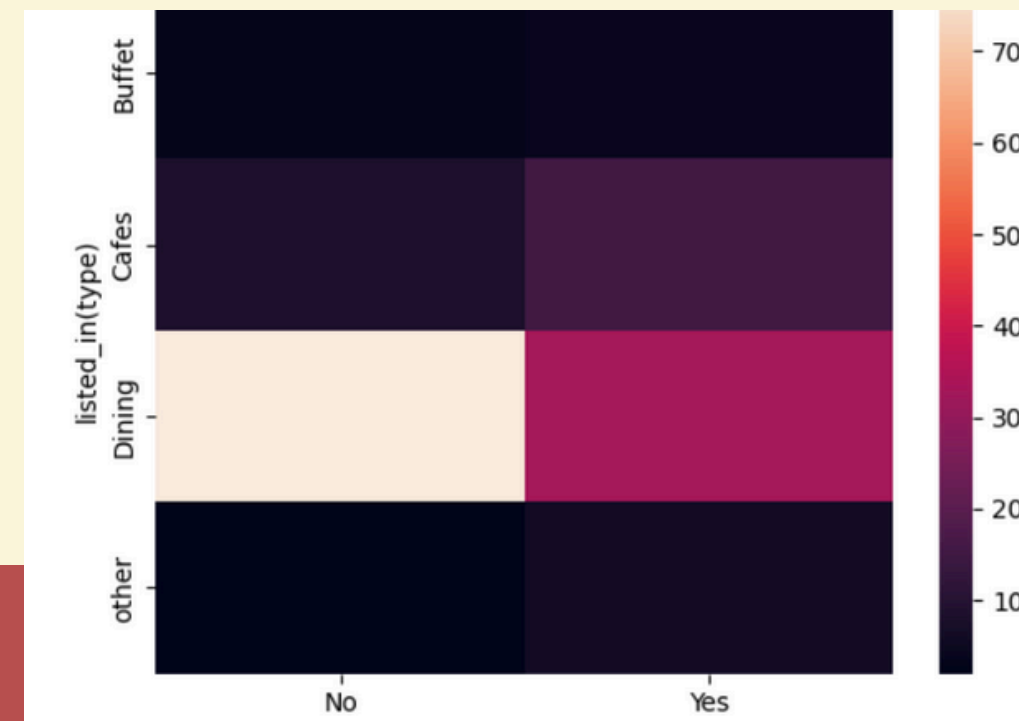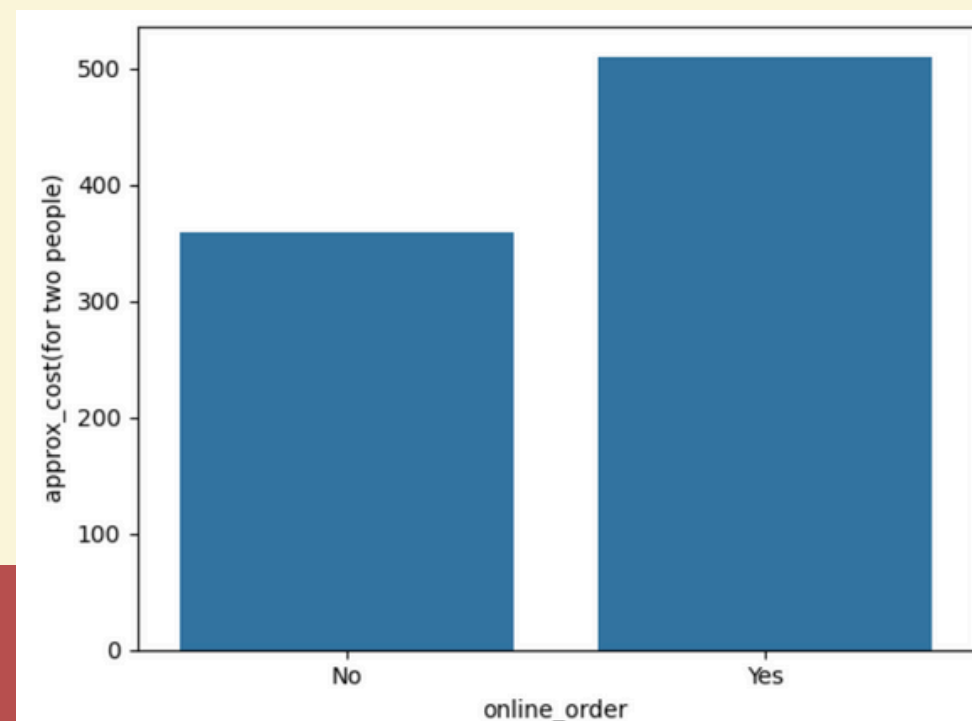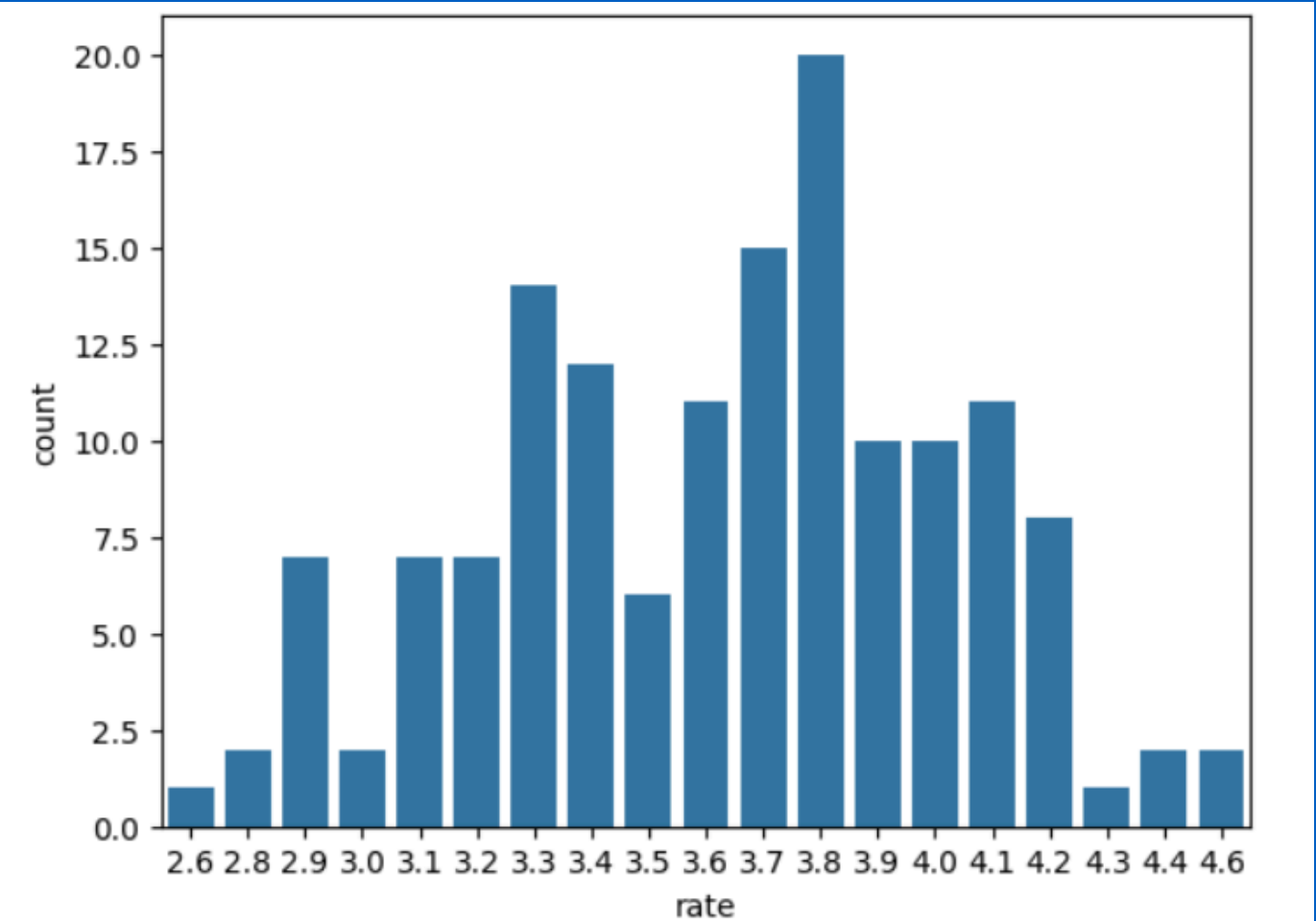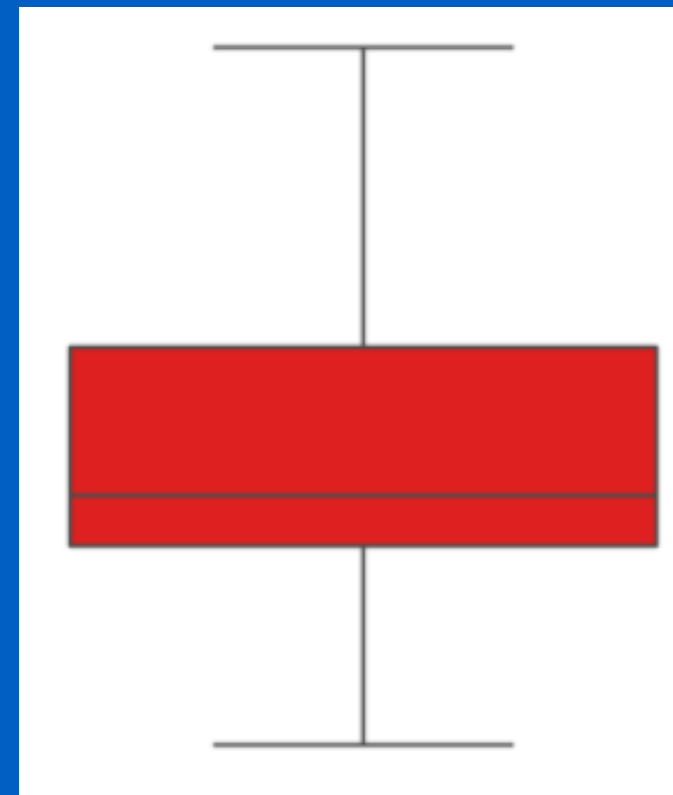
OVERVIEW OF MY CODES

```python
sns.boxplot(x="online_order",y="rate",data=data,palette={"Yes":"blue","No":"red"},hue="online_order")
plt.title("max rating by box plot",c="g",size=20)
plt.show()
```

```python
sns.countplot(x=data["rate"])
```

```python
gbb=data.groupby("online_order")["approx_cost(for two people)"].mean()
gbb
```


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MY KEY FINDINGS

Most Popular Cuisines: Certain cuisines were found to dominate customer preferences across locations.

Cost Distribution: Majority of restaurants fell within a specific cost bracket, indicating pricing trends.

Online Ordering Impact & Location Insights: Restaurants offering online delivery had higher engagement,Premium ratings and higher costs were concentrated in certain prime localities.

Rating Patterns: Majority of restaurants had ratings clustered around average, with fewer extremely high-rated places.