ZOMATO DATA ANALYSIS

SILICON VALLEY OF INDIA – BENGALURU

Team Members

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INTRODUCTION

Welcome to this presentation on Zomato data analysis in Bangalore. We will explore trends in dining preferences, restaurant popularity, and customer reviews, leveraging Python's data analysis capabilities to gain insights into the city's vibrant culinary landscape.

ABSTRACT

- The basic idea of analysing the Zomato dataset is to get a fair idea about the factors affecting the aggregate rating of each restaurant, establishment of different types of restaurants at different places. Bengaluru being one such city has more than 12,000 restaurants with restaurants serving dishes from all over the world. With each day new restaurants opening the industry hasn't been saturated yet and the demand is increasing day by day. Inspite of increasing demand it however has become difficult for new restaurants to compete with established restaurants. Most of them serving the same food. Bengaluru being an IT capital of India. Most of the people here are dependent mainly on the restaurant food as they don't have time to cook for themselves. With such an overwhelming demand of restaurants it has therefore become important to study the demography of a location. What kind of a food is more popular in a locality. Do the entire locality loves vegetarian food. If yes, then is that locality populated by a particular section of people for example Jain, Marwaris, Gujaratis who are mostly vegetarian. These kind of analysis can be done using the data, by studying different factors.

OVERVIEW AND PRESENCE OF ZOMATO IN BENGALURU

ZOMATO ROLE

- Zomato is a leading online platform that connects users to restaurants, providing information on menus, reviews, and delivery options.

BANGALORE CULINARY HUB

- Bangalore is renowned for its diverse cuisine and vibrant food scene, making it a perfect location for Zomato's operations.

VAST USER BASE

- Zomato boasts a large user base in bangalore, with thousands of restaurants listed and millions of users relying on the platform.

Data Collection: Scraping Zomato Website using Python

TARGET WEBSITE

Zomato's website is the primary source of data for this analysis. We will utilize web scraping techniques to extract relevant information.

DATA EXTRACTION & STORAGE

We'll target specific sections of the website, such as restaurant listings, menus, ratings, and reviews, to collect the required data.The extracted data will be stored in appropriate formats, such as CSV files or Pandas DataFrames, for further processing.

Python's libraries such as BeautifulSoup and Requests are essential tools for extracting data from web pages.

PYTHON LIBRARIES

Data Preprocessing: Cleaning and Formatting the Data

DATA CLEANING

- This involves removing duplicates, handling missing values, and correcting inconsistencies in the dataset to ensure data quality.

DATA FORMATING

- We'll convert data types, format dates, and standardize units of measurement to make the data consistent and usable for analysis.

DATA TRANSFORMATION

This step may involve creating new variables, aggregating data, or grouping data into meaningful categories.

Exploratory Data Analysis (EDA) using NumPy and Pandas

- Descriptive Statistics

NumPy and Pandas provide functions for calculating mean, median, mode, standard deviation, and other descriptive statistics.

- Data Visualization

We'll use libraries like Matplotlib and Seaborn to generate charts and graphs to visualize patterns and relationships in the data.

- Data Exploration

EDA helps us understand the data distribution, identify outliers, and discover interesting relationships between variables.

Visualizing the Data: Generating Informative Charts and Graphs

- Bar Charts

Illustrate the distribution of cuisines, rating frequencies, or the number of restaurants in different areas.

- Scatter Plots

Analyze the relationship between variables, such as ratings and price range, or customer ratings and restaurant popularity.

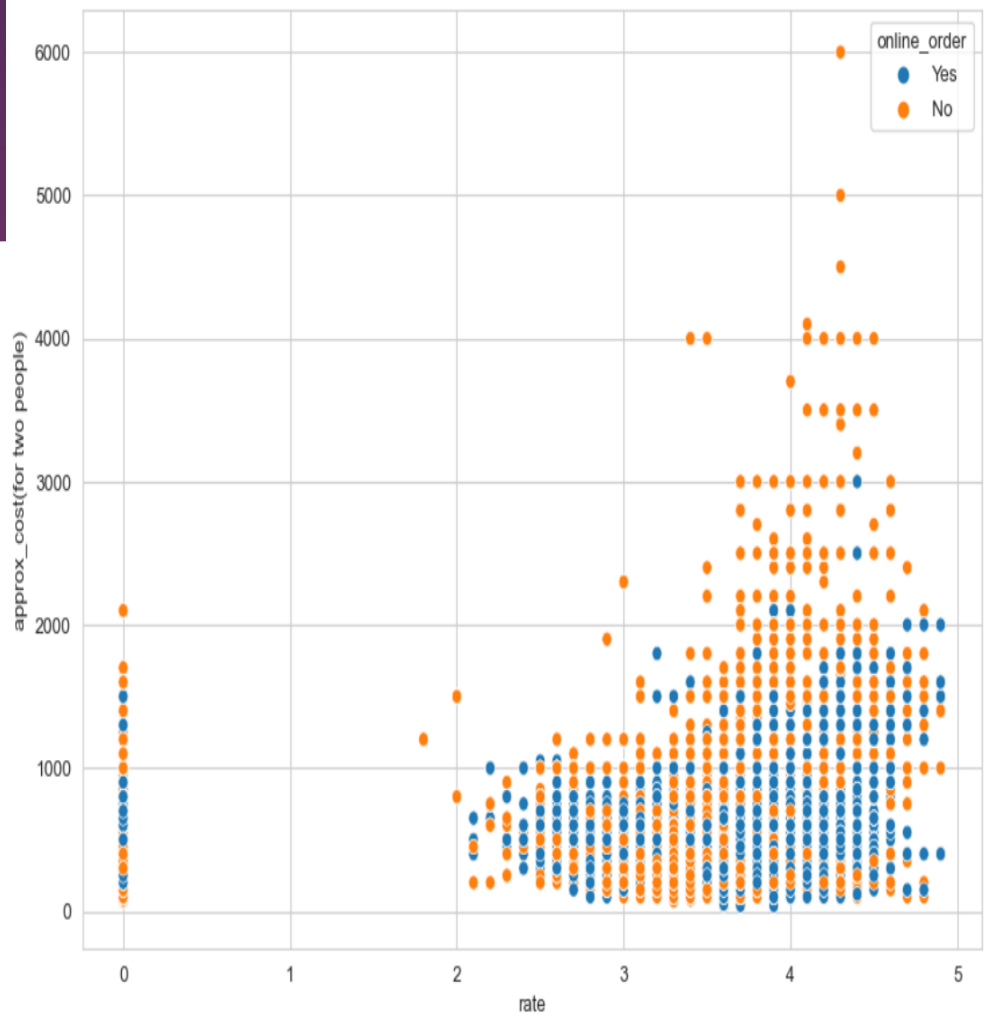
- Heatmaps

Show the correlation between different variables, providing insights into the interrelationship of factors affecting restaurant performance.

- Maps

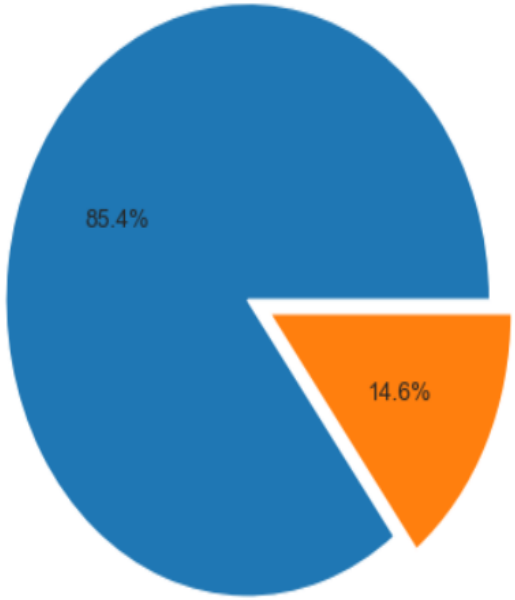
Visualize the geographic distribution of restaurants, revealing clusters of specific cuisines or popular locations.

```
plt.figure(figsize=(10,7))
sns.scatterplot(x="rate",y='approx_cost(for two people)',hue='online_order',data=df)
plt.show()
```

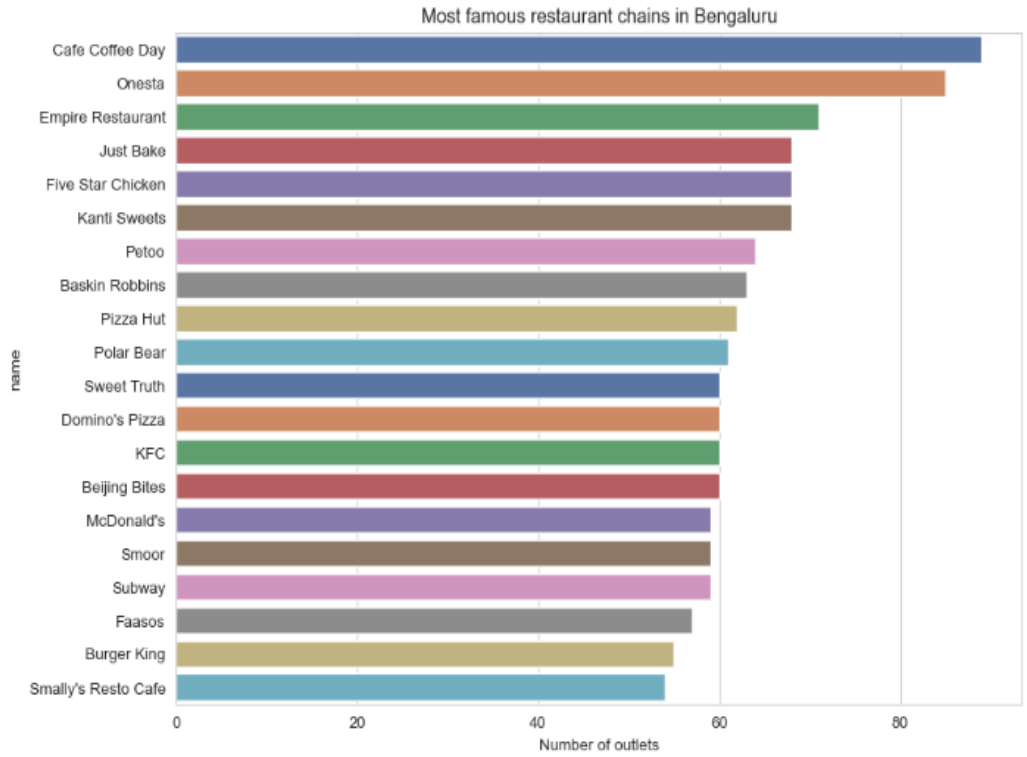


from this scattterplot,we can come up with a conclusion that most of the highest rated accepts online order and they are in budget too

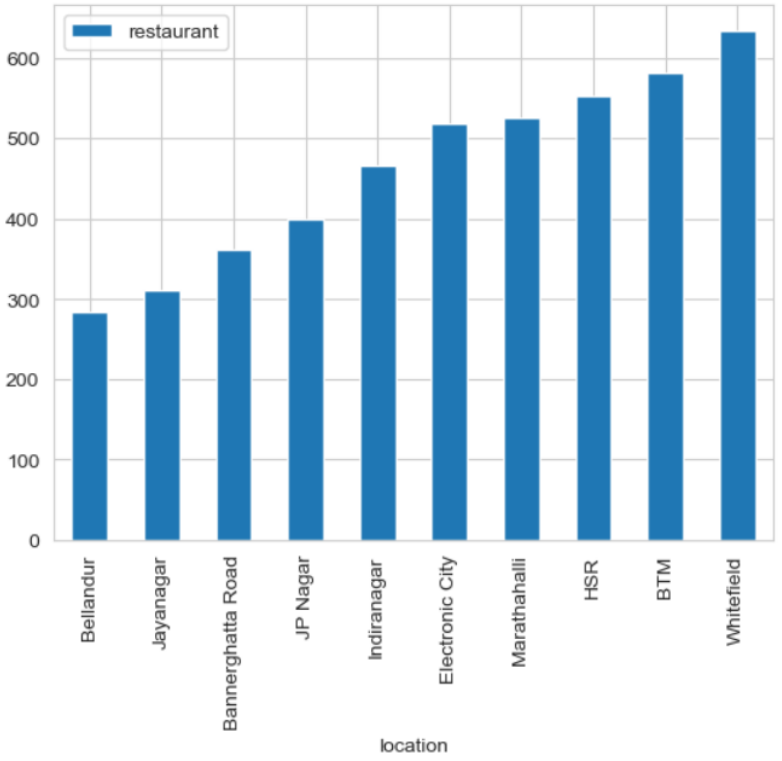
Analysing Customer Ratings & Reviews



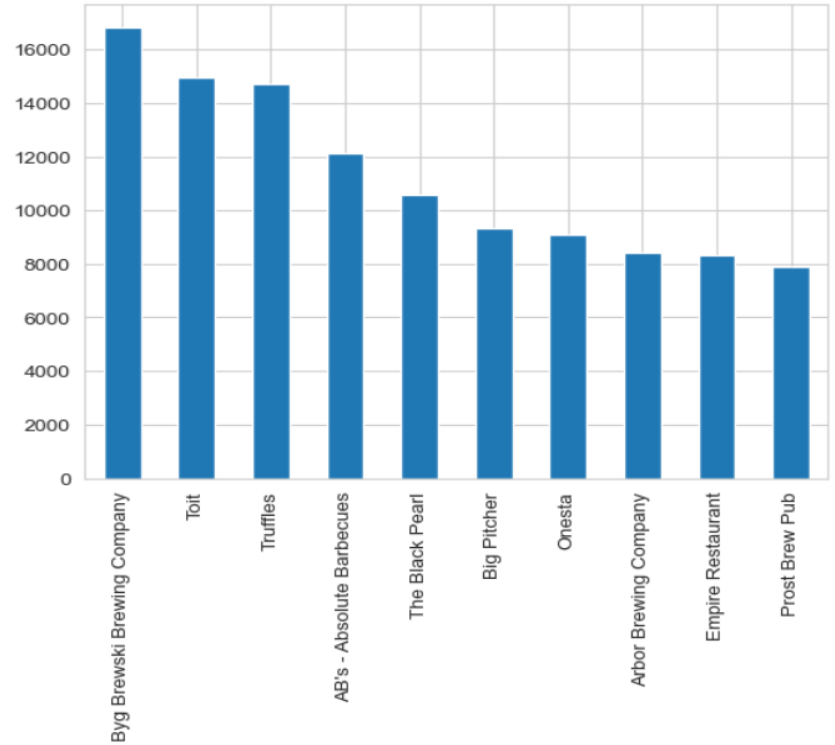
Ratio b/w Restaurants that provide and do not provide table booking



Analysing Customer Ratings & Reviews

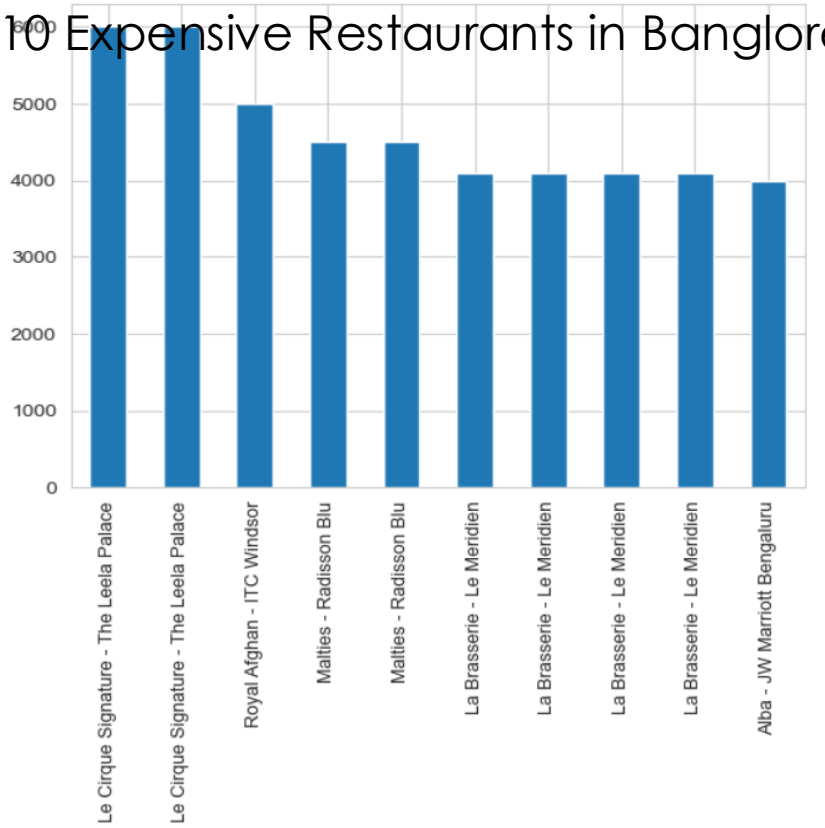


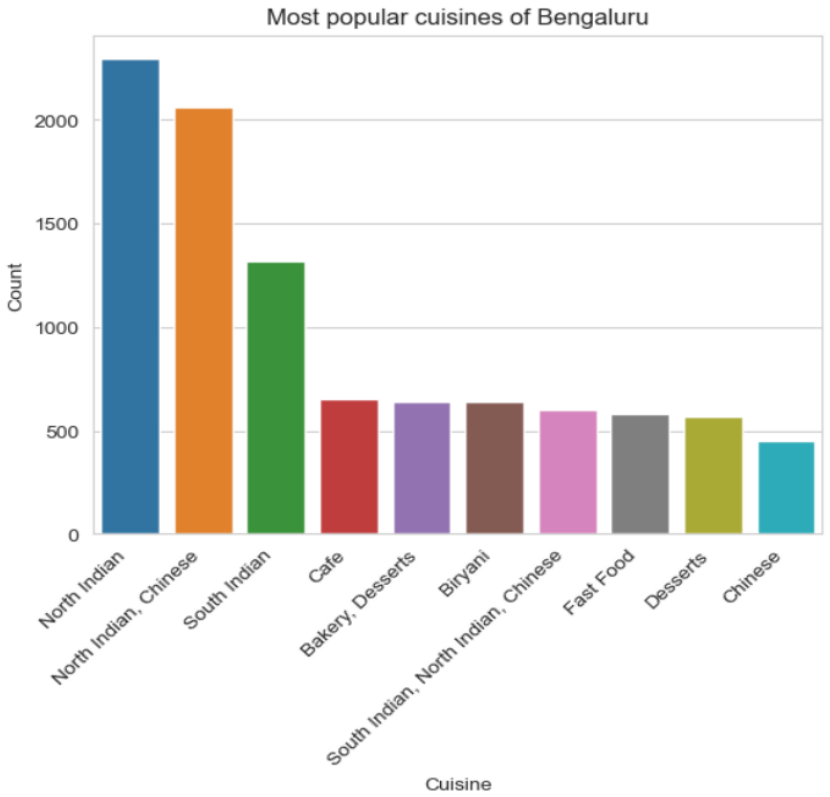
Highest Voted Restaurant



Analysing Customers Ratings & Reviews

Top 10 Expensive Restaurants in Banglore

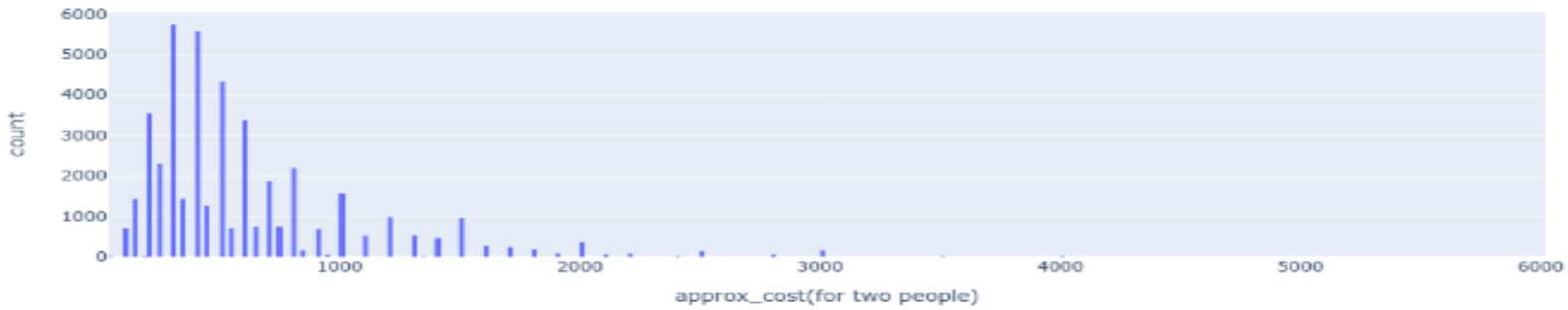




Analysing Customers Ratings & Reviews

20 Distribution of cost for two people

[150]:
```
px.histogram(df, x="approx_cost(for two people)")
```



ANALYSIS INSIGHTS

- Top restaurant chains in Bengaluru
- How many of the restaurants do not accept online orders
- Ratio b/w Restaurants that provide and do not provide table booking
- Highest Voted Restaurant
- Total restaurants at different locations of Bangalore
- Total number of variety of restaurants i.e., North Indian, South Indian
- Analyse approximate cost for two people

ANALYSIS INSIGHTS

- Cheapest Restaurants in Bangalore
- Expensive Restaurants in Bengaluru
- Top 10 Most Expensive restaurant with approximate cost for 2 people
- Top 10 Cheapest restaurant with approximate cost for 2 people
- To Visualise what are the names of those affordable Restaurants
- Finding Best budget Restaurants in any location
- Foodie Areas in Bengaluru


THANK YOU