# Restaurant Dataset Analysis

# Predicting the Restaurant Attribute

- The restaurant market in Bengaluru is highly competitive and technologically driven.
- The purpose of this project is to guide new entrepreneurs and business on how, what and where should a new restaurant be established.
- The dataset used for the project is a Kaggle dataset in conjunction with Foursquare API data

# Data acquisition and cleaning

- The dataset used for the project was a kaggle dataset : (https://www.kaggle.com/himanshupoddar/zomato-bangalore-restaurants)
- The data collected from kaggle and foursquare was cleaned and processed for analysis.
- Duplicate, highly similar or highly correlated features were dropped.
- Cleaned data contains 12 features.

# Libraries used for the project

- Folium
- Pandas
- Numpy
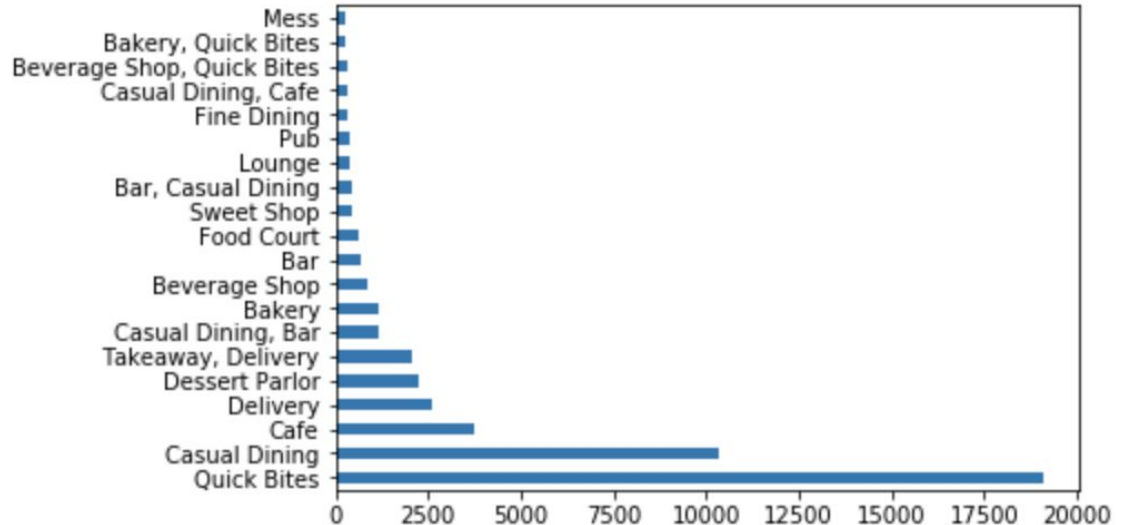- Seaborn
- Foursquare API
- Geopy
- Matplotlib

```python
import requests # to handle requests
!conda install -c conda-forge geopy --yes
from geopy.geocoders import Nominatim # module to convert an address into latitude and longitude values

#tranforming json file into a pandas dataframe library
from pandas.io.json import json_normalize
!conda install -c conda-forge folium=0.5.0 --yes
import folium # plotting library
```

```python
%matplotlib inline
import types
import pandas as pd
from botocore.client import Config
import ibm_boto3
import matplotlib.pyplot as plt
import numpy as np
import seaborn as sns
def __iter__(self): return 0
```
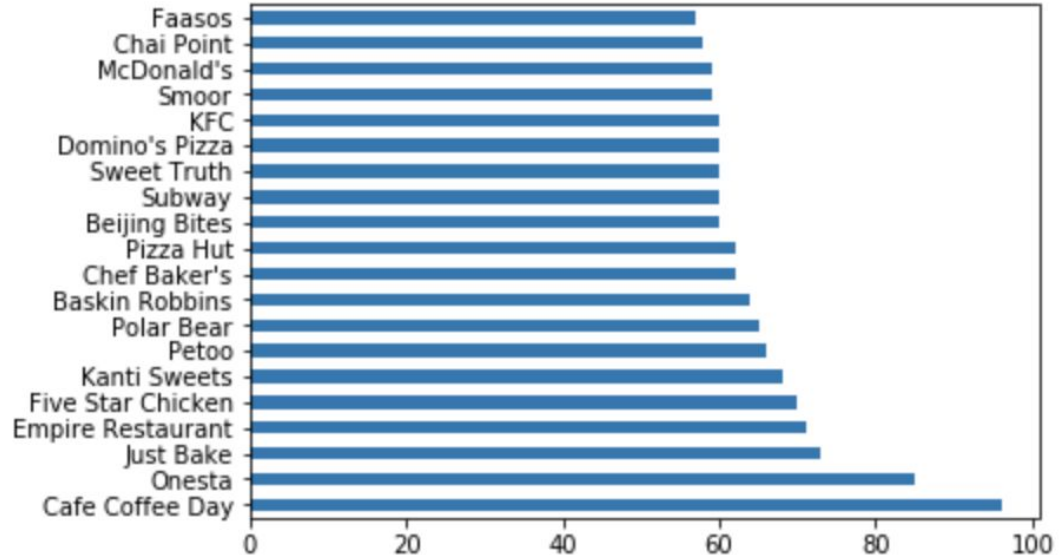
# Popular Restaurant Types

- "Quick Bites" and "Casual Dining" are the most popular restaurant types.
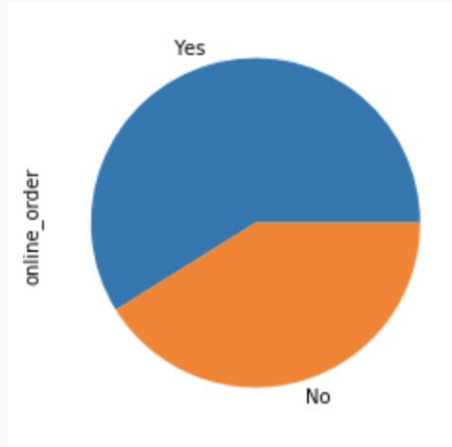
# Popular Restaurants

- Cafe Coffee Day is the most popular restaurant chain, having the highest number of votes and restaurants.

# Location and Online orders

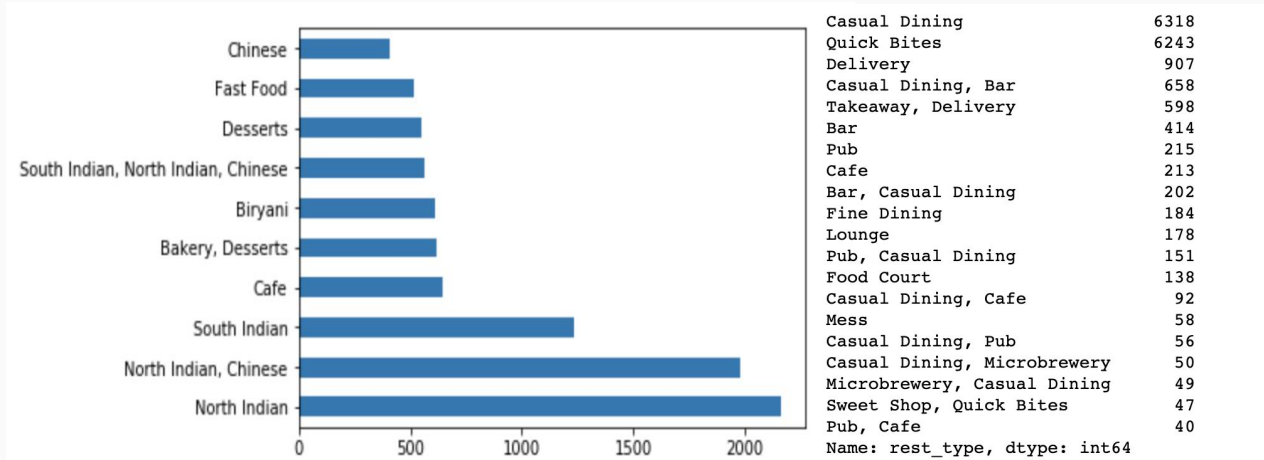- Majority of the restaurants have an online order facility.
- BTM and Brigade road are the most popular location for restaurants.



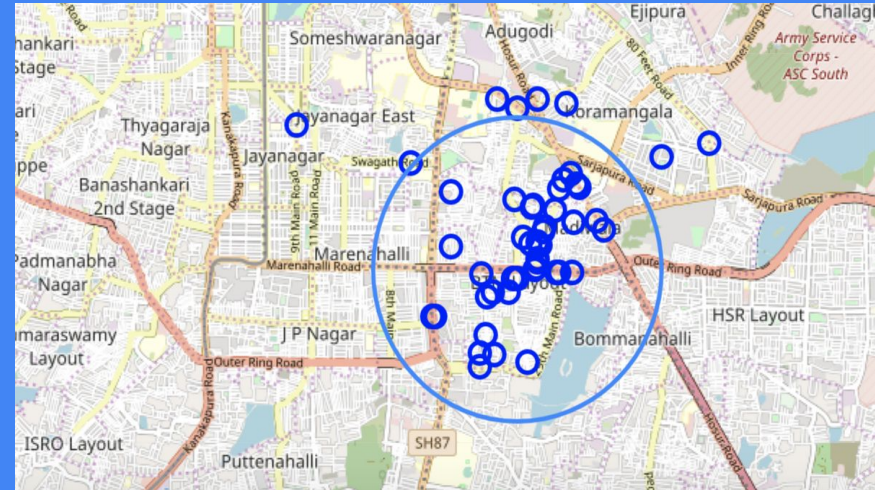| location | votes |
|---|---|
| BTM | 619376 |
| Brigade Road | 429620 |
| Bannerghatta Road | 219077 |
| Bellandur | 206027 |
| Banashankari | 162374 |
| Brookefield | 118991 |
| Basavanagudi | 94919 |
| Banaswadi | 35657 |
| Basaveshwara Nagar | 18133 |
| Bommanahalli | 7703 |

# Restaurant Cuisine

- North indian is by far the most popular cuisine in the city of Bengaluru.
- Amongst restaurants serving north indian food, casual dining is the most popular restaurant type



```
Casual Dining                      6318
Quick Bites                        6243
Delivery                            907
Casual Dining, Bar                  658
Takeaway, Delivery                  598
Bar                                 414
Pub                                 215
Cafe                                213
Bar, Casual Dining                  202
Fine Dining                         184
Lounge                              178
Pub, Casual Dining                  151
Food Court                          138
Casual Dining, Cafe                  92
Mess                                 58
Casual Dining, Pub                   56
Casual Dining, Microbrewery          50
Microbrewery, Casual Dining          49
Sweet Shop, Quick Bites              47
Pub, Cafe                            40
Name: rest_type, dtype: int64
```

# Using the foursquare API for clustering real time information about restaurants

BTM is highly clustered and preferable location for new restaurants

# Conclusion and Future Considerations

- A new restaurant should be located in either of the most popular areas :BTM or Brigade road
- Cuisine which should be selected for establishing the restaurant should be North Indian.
- Online order facility is also a necessity.
- Casual dining/Quick Bite eateries are the most popular.