Capstone Project - The Battle of Neighborhoods (Week 1)

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A large building with many people in front of it

Description automatically generated with low confidence

# **1.Introduction**

**1.1 Background**

Mumbai (previously known as Bombay) is the biggest metropolis of India. A city that is full of life and is also known for its well-known tourists places, commercial hubs restaurants and government bodies. It is also known as the financial capital of India. The city is located on the western part of the India and is the capital of Maharashtra. Restaurants across the city are in cahoots to bring out the food connoisseurs with a range of food showcasing the art of fine dining to mouth-watering street food. The dining experience at an upscale restaurant in Mumbai is more or less the same as elsewhere in the world.

Whenever a person searches for a venue in a new city, they’re highly interested in the best places that the city has to offer. The person might want to know how good a given restaurant is or the price range it falls under. This extra information would help decide which venue to choose amongst the many venues in the city. Combining the location of the venues in the city with their price and rating information would surely help visitors in a city make better informed decisions about the places they should visit.

**1.2 Target Audience**

The concept of theme based restaurant is growing at a very fast pace. Every entrepreneur wants to be different from the rest so that a new element can be presented to the guests. Distinction is seen in form of cuisine offered, décor, menu designing, overall concept etc. Customers have very high demands, fulfilling of which can make a restaurant successful in the business. Since the majority of guests are from upper-middle class to rich category, they are likely to be the ones to try new cuisines. It would be good for the restaurant owners/managers to know what people want and what they are searching for.

# **2.DATA**

**2.1 Data Sources**

To get location and other information about various venues in South Mumbai, I used two APIs and decided to combine the data from both of them together. As Zomato has more influence and Restaurant reviewers than FourSquare in India.

Using the Foursquare’s explore API (which gives venues recommendations), I fetched venues up to a range of 6 kilometres from the centre of South Mumbai and collected their names, categories and locations (latitude and longitude).

I used the Zomato search API to fetch venues from its database using the Latitude and longitude values of South Mumbai. This API helps to find venues based on search criteria (usually the name), latitude and longitude values and more. As the data from FourSquare and Zomato API’s did not align properly, Data cleansing was required.

From Foursquare API (<https://foursquare.com/developers>):

I retrieved the following for each venue:

* **Name**: The name of the venue.
* **Category**: The category type as defined by the API.
* **Latitude**: The latitude value of the venue.
* **Longitude**: The longitude value of the venue

From Zomato API (<https://developers.zomato.com/api>) :

* **Name**: The name of the venue.
* **Address**: The complete address of the venue.
* **Rating**: The ratings as provided by many users.
* **Price** **range**: The price range the venue belongs to as defined by Zomato.
* **Price** **for** **two**: The average cost for two people dining at the place. Conversion of PF2 is by getting average price per person by multiplying by 2.
* **Latitude**: The latitude value of the venue.
* **Longitude**: The longitude value of the venue.

**Result**: Capstone Project - The Battle of Neighborhoods (Week 1) report includes the business problem/Introduction and prior data injestion and cleaning. Please refer my Jupyter notebook for the Results and data showing the data of restaurants from South Mumbai using API calls.

Link to the NoteBook:

<https://github.com/Tanvik-VP/Applied-Data-Science-Capstone/blob/main/The%20Battle%20of%20the%20Neighborhoods%20(Week%201).ipynb>