## Capstone project – "The battle of Neighborhoods".

Analytics for an upcoming restaurant with Foursquare location data

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## Problem statement

Mumbai is one of the top 15 cities visited by international visitors. It is a host to 10 million\* visitors every year. For most of the visitors it is the entry gate to exploring India, the central area of the city also hosts most of the tourist attractions, thus the central area of the city is a convenient area for International tourists to explore. In to being the financial capital of the country and a multicultural hub, Mumbai is also a well-known destination for great food.

The purpose of this project is to explore a great destination for setting up an Italian food restaurant in the Mumbai neighborhoods. One of the major aspects to look for is the proximity to the airport. Looking at the purpose of tourists for visiting Mumbai, it is evident that it will be either and entry point or exit point to India. Thus, it is a tendency of tourists to stay in areas convenient to the airport location. Also, from exploration perspective, tourist who are running tight on schedule will at least find a day or two to explore the city near and cover many place near their hotel. This increases the probability of setting up and international cuisine restaurant in an area that is in proximity to the international airport.

From a domestic visitor perspective, it is also essential to look for an upmarket area, within a 10 Km radius considering the traffic conditions in city, that will help the nearby residents to visit the restaurant and also order for takeaway food.

The proposal is to analyze and address the above two crucial aspects in consideration and suggestion for opening the new restaurant.

<sup>\*</sup>https://en.wikipedia.org/wiki/List of cities by international visitors

## Overview of data

The data that we intend to use for this project is a CSV file that has been prepared from multiple sources and the location details are sourced using the Geopy package. The nearby location data is rendered with the help of Foursquare.

We will first define the neighborhoods for the restaurant based that are close to the upmarket areas and have a proximity to the airport. For classifying an upmarket area, an identifier metric can be the rates of rent prices in that area. The first step is therefore to identify the rent in areas near airport. Using google I was able to source the average rental per unit for a residential property in these areas and also their latitude and longitude co-ordinates. These venues will be further searched in the foursquare database for a later part of the analysis.

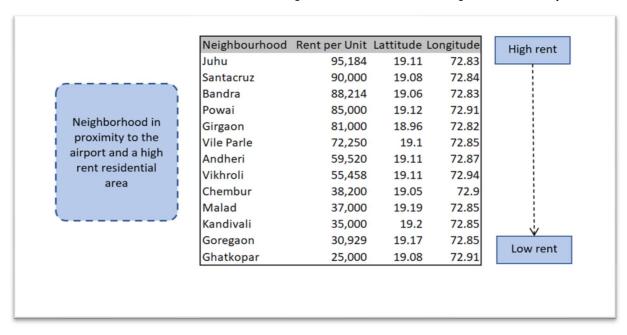


Fig 1. The CSV data required for initial exploratory analysis.

The initial look at the rendered map data revels the neighborhoods of Bandra, Juhu, Santacruz, Ville Parl, Chembur as good contenders for the restaurant location. These locations need to be further tested in Foursquare of similar presence establishments nearby minimize to competition. The remaining steps in the project will be to evaluate the most suitable area for setting up a restaurant and also consideration of other factors such as overall restaurant density in the area.

