

THE BATTLE OF NEIGHBORHOODS



Introduction

Indian cuisine consists of a wide variety of regional and traditional cuisines native to the Indian subcontinent. Given the range of diversity in soil type, climate, culture, ethnic groups, and occupations, these cuisines vary substantially from each other and use locally available [spices](#), [herbs](#), [vegetables](#), and [fruits](#). Indian food is also heavily influenced by religion, in particular Hindu, cultural choices and traditions. The cuisine is also influenced by centuries of Islamic rule, particularly the [Mughal](#) rule. [Samosas](#) and [pilafs](#) can be regarded as examples.

Business Understanding and Analytic Approach

Restaurants

”A restaurant or an eatery, is a business which prepares and serves food and drinks to customers in exchange for money. Meals are generally served and eaten on the premises, but many restaurants also offer take-out and food delivery services. Restaurants vary greatly in appearance and offerings, including a wide variety of cuisines and service models ranging from inexpensive fast food restaurants and cafeterias, to mid-priced family restaurants, to high-priced luxury establishments.” (Wikipedia, 2019)

If a business like a restaurant offers such variety of alternatives, is highly recommended a thorough study before any investment is made. It’s important to understand the population characteristics of the target city, as well as their preferences.

India population and cities

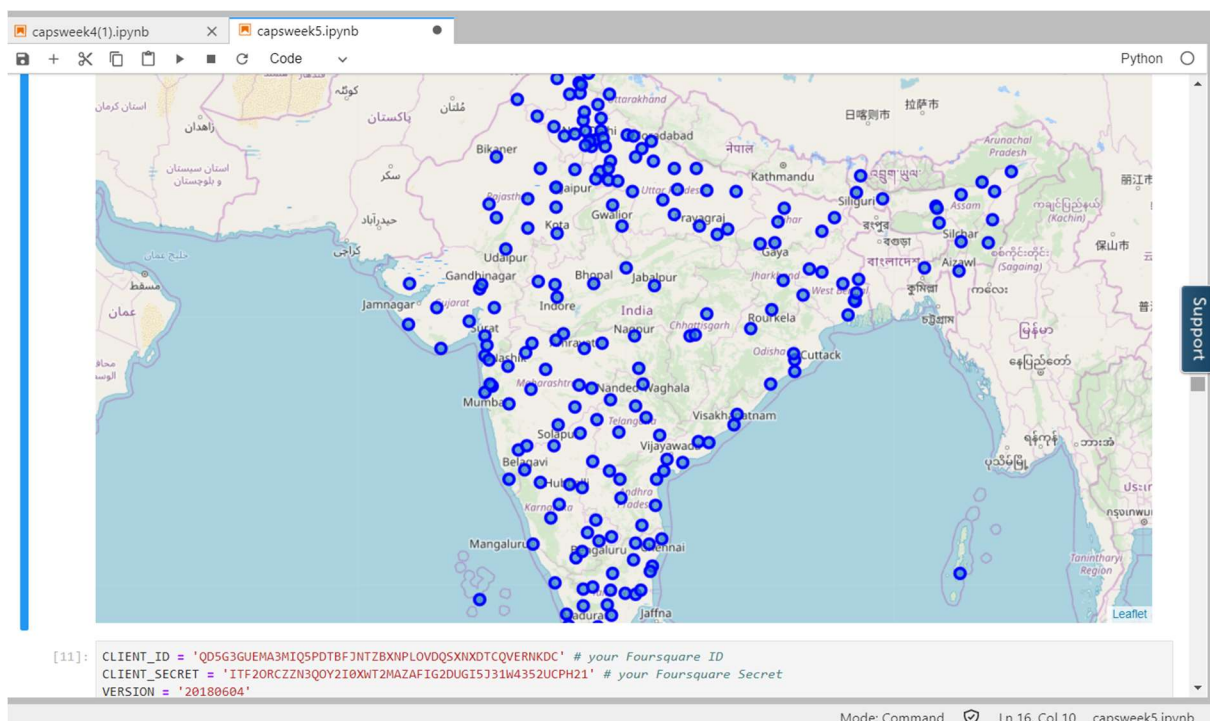
India is the second most populated country in the world with nearly a fifth of the world's population. According to the 2017 revision of the World Population Prospects, the population stood at 1,324,171,354.

During 1975–2010 the population doubled to 1.2 billion. The Indian population reached the billion mark in 1998. India is projected to be the world's most populous country by 2024, surpassing the population of China. It is expected to become the first political entity in history to be home to more than 1.5 billion

people by 2030, and its population is set to reach 1.7 billion by 2050. Its population growth rate is 1.13%, ranking [112th](#) in the world in 2017.

India has more than 50% of its population below the age of 25 and more than 65% below the age of 35. It is expected that, in 2020, the average age of an Indian will be 29 years, compared to 37 for China and 48 for Japan; and, by 2030, India's [dependency ratio](#) should be just over 0.4.^[7]



MAP OF INDIA'S MAJOR CITY






Analytic Approach

To solve this problem first we need to setup some benchmarks for the City to be eligible for Business. After getting the desired results of the City, we need to find the Locality in that City.

1. For discovering the City following benchmarks must meet

-  Nightlife
-  Services
-  Transport
-  Residence
-  Universities
-  Food
-  Entertainment
-  Travel
- Outdoor Activities

2. Benchmarks for the Locality in City

-  Per Capita Income
-  Population
-  Population Density
- Venues

Data Requirements

Data that will be required for solving the problem -

- + List of all the cities in INDIA with population density and coordinates
- + List of all venues in each city
- + List of all venues in each locality in the selected city

Methodology

Using numpy and panda Library and csv file containing information about Cities of INDIA by Population and are scraped into Pandas Dataframe.

Dataframe contained data about Cities, Coordinates, Area and Population Density. Than Dataframe was Cleaned and Processed according to requirement of the problem to be solved. Proper benchmarks were set to obtain the best results.

The List of Venues in a City were obtained using Foursquare API and the city with maximum weight according to the Model is selected.

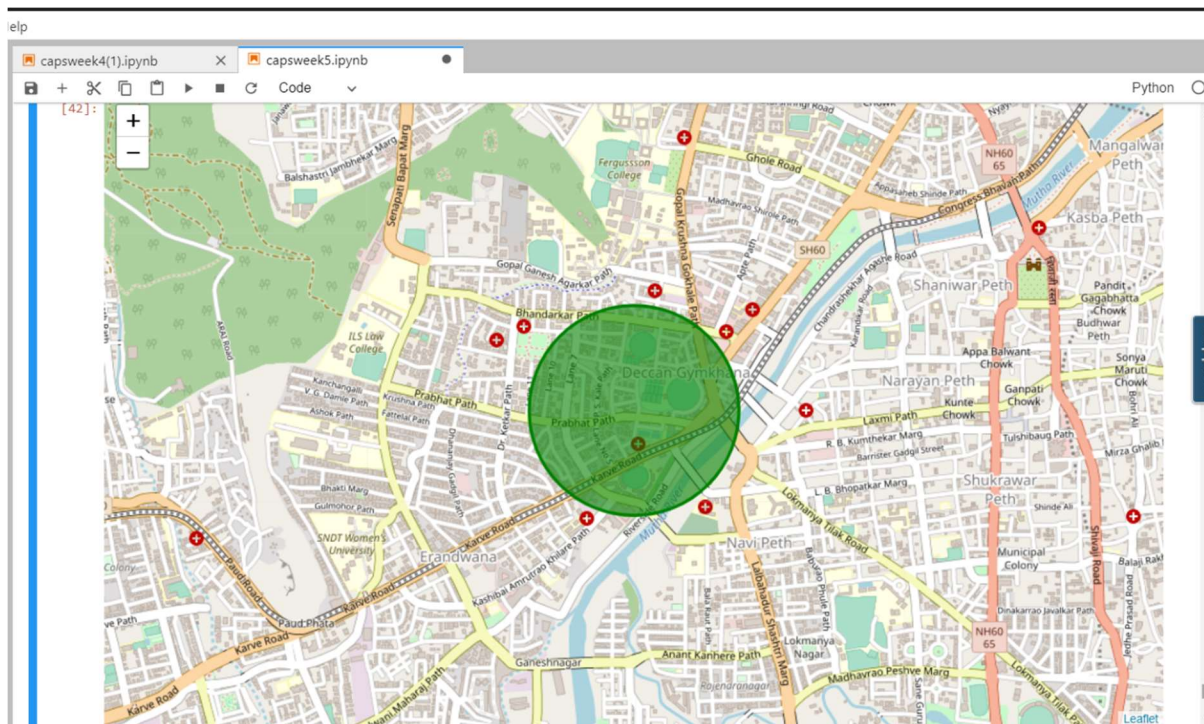
Results

Based on analysis we have done the results we obtain are – The plot shows the final location predicted by the Machine Learning Model –

For opening the Shopping mall/hotel

The Best city in India – Pune

The best locality in Pune– Deccan gymkhana



Conclusion

Based on the given constraints, Shopping mall/hotel can be open in a place closer to the centre of the circle to attract a greater number of diverse customers and get huge revenue.

Resources/references

List of all the cities in India with population density and coordinates:

Four Square API: <https://foursquare.com>