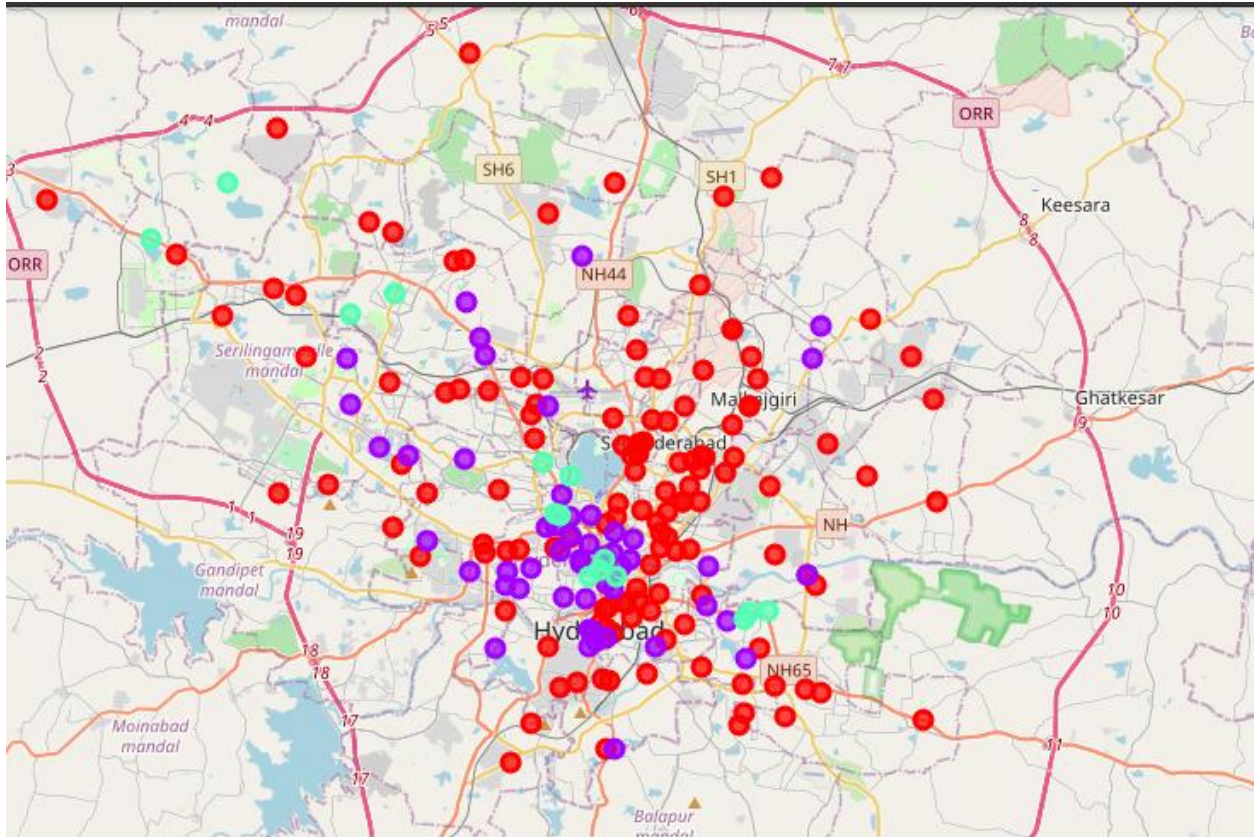


Coursera Capstone Project

The Battle of Neighborhoods – Hyderabad, India



Identifying lucrative neighborhoods in Hyderabad set up a restaurant

Introduction Section

Created By: Neha Madnekar

Introduction

There are lots of challenges to be faced while starting a restaurant business. Amongst all the decisions that are to be made location is a major discussion point and a prime concern. One needs to be very careful while choosing a location keeping an eye on the footfall available in that area and competition existing in the locality.

Hyderabad, popularly known as “City of Pearls”, is a 400-year-old metropolitan. It is the sixth most populous urban agglomeration in India. Hyderabad is the most happening city in the south of India with a rich scope for food business. According to a survey, it is voted the second-best city in India for doing food business. It stands famously for food, shopping, technology, arts, and pearls.

Experiencing the social behavior revolution, City’s cosmopolitan outlook and modern lifestyle has attracted people of diverse ethnicities and lifestyles. People here enjoy their leisure time with great zeal. Leisure time on weekends is given a serious thought. Hence all the cafes restaurants, theatres, parks, and amusement spots are assured, a house full crowd. Additionally, the growing social culture is boosting its growth at a faster pace. Hence, it is ideal for an individual/ group or a conglomerate restaurant chain because more people means more sales.

This project will help the audience address the following questions:

1. Which are some of the most lucrative localities in Hyderabad to set up a restaurant?
2. Which are some good areas in Hyderabad where a business can be set up with minimum competition?
3. How many clusters can the neighborhoods in the Hyderabad be divided into?

Business Problem: The objective of this project is to find all the major neighborhoods in Hyderabad and accordingly cluster them to identify lucrative localities to set up a restaurant. This project will be helpful to individual businessmen or restaurant-chain who want to identify optimal locations in Hyderabad to set up restaurants, hotels, food trucks etc.

Target Audience:

To summarize, this project is ideal for -

1. Individuals looking to start a restaurant
2. A restaurant-chain looking to grow its business
3. A conglomerate looking to diversify into restaurant business

Techniques Used:

1. Web Scraping: A list of all neighborhoods in Hyderabad is fetched from Wikipedia using several python requests along with their latitude and longitude details. Foursquare API is then used to access venues around these neighborhoods
2. Data Preprocessing and Cleansing: A data frame of all these neighborhoods mapped against their geo location details as well as venues is created indicating the presence/absence of the venue category in that area
3. Clustering: K-means clustering technique is then used to cluster all the neighborhoods based on the presence of all the venues except for the venue category – restaurants. Folium library is imported to help visualize the map of Hyderabad and superimpose the clustered data points onto it.