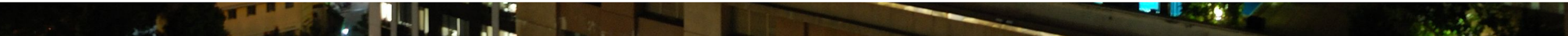
COURSERA CAPSTONE PROJECT

FINIDING A SUITABLE RESTAURANT IN BANAGLORE

By: S Shahnaaz

April 2020



INTRODUCTION:

Bangalore is the capital of India's southern Karnataka state. It is India’s high-tech industry hence containing a large number of working people. This has increased the number of young adults who depend on restaurant for their food. Different people have different requirements when it comes to choosing a restaurant. While going to a new place knowing the restaurants in different areas help you decide the suitable locality for an individual.

BUSINESS PROBLEM:

Deciding the most suitable locality with the most suitable restaurants can improve the comfort of living for a person.This project will allow customers to categorise and classify their restaurants easily.

TARGET AUDIENCE:

This project will help the working class, tourists and families decide on the restaurants of their choice.

DESCRIPTION OF DATA:

Required Data:

1. Postal code of restaurants in Bangalore
2. Latitude and longitude of restaurants
3. Ratings of the restaurants

Source of Data:

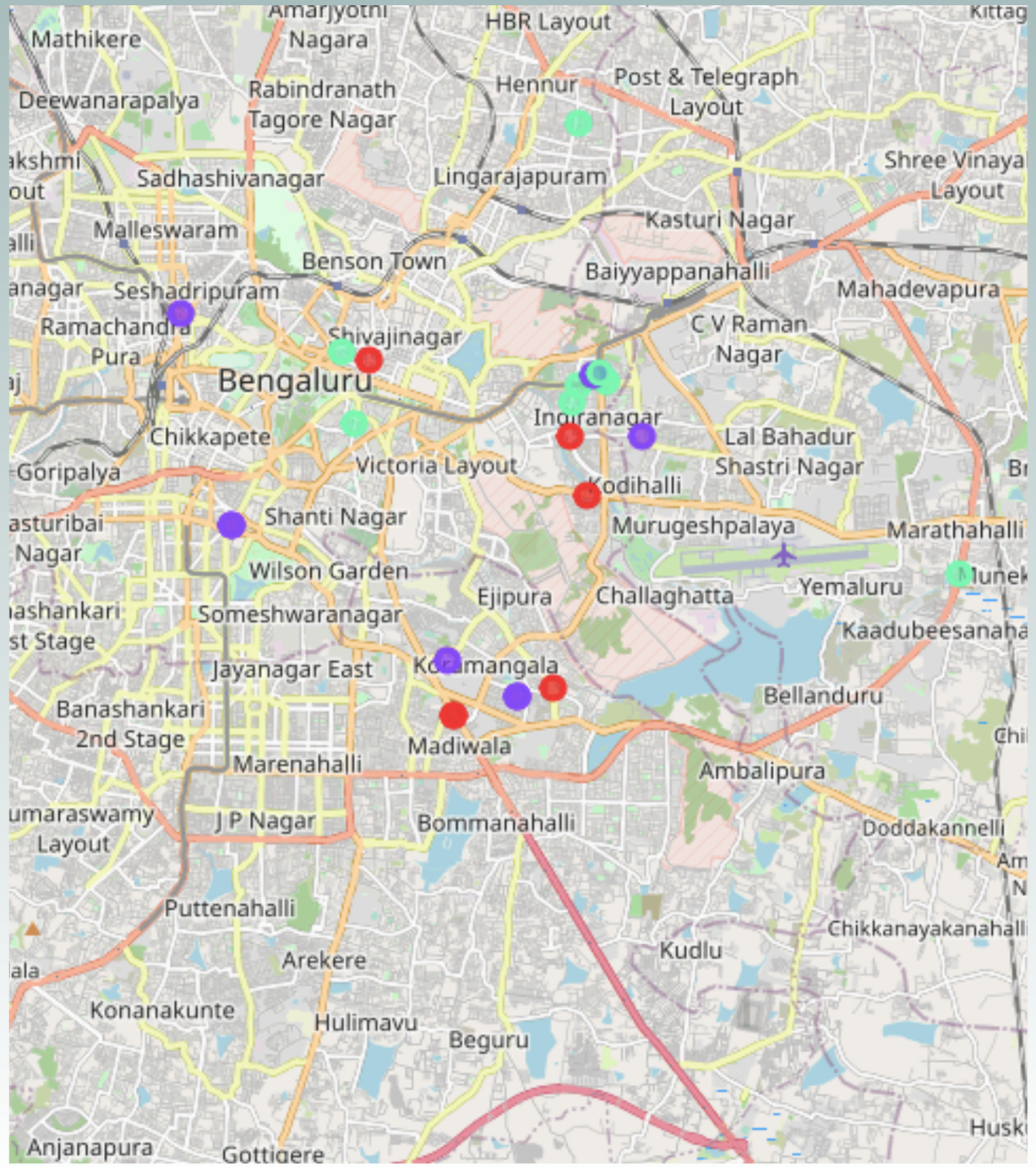
1. Postal codes of areas in Bangalore is determined by extracting it for sites online.
2. Latitude and longitude is determined using geopy
3. Restaurants are found using Foursquare API
4. Rating of restaurants are determined using Foursquare API

METHODOLOGY:

The names of restaurants along with the details of the restaurants are extracted using Foursquare API. The available ratings are also extracted.

The restaurants can be clustered according to the ratings hence allowing the customer to see areas with good restaurants. Depending on the customers requirement of the type of restaurant and cuisine they can choose the most suitable area for them.

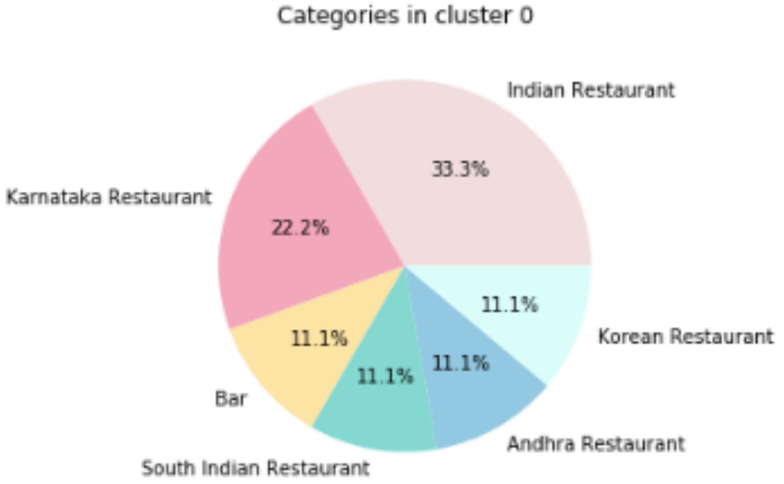
K-Means algorithm is used for clustering the restaurants into its respective category. K- means algorithm is an iterative algorithm that partitions the dataset into k clusters. In this situation we are going to divide the dataset into 3 clusters where one cluster represents the highly rated restaurants , the second cluster represents the medium rated restaurant and the last cluster represents the low rated restaurants.

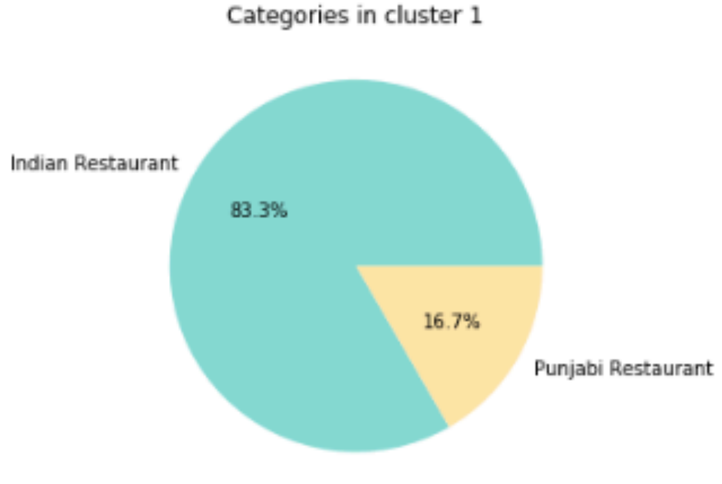


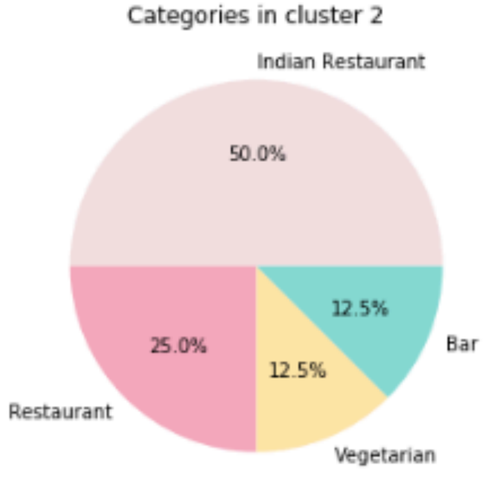
RESULT:

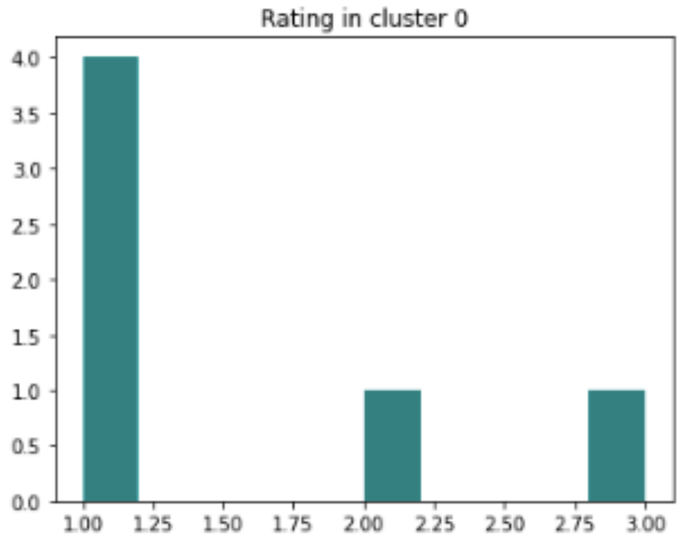
- Cluster 0 represents the restaurants with the highest rating (7 to 8). It consists of Indian restaurants as its main category(33%). Coorg - The Restaurant is the restaurant with the highest rating.
- Cluster 1 represents the restaurant with the minimum ratings(5 to 5.9). It consists of Indian restaurants as its main category(83%).
- Cluster 2 represents the restaurants with medium rating (6 to 7).

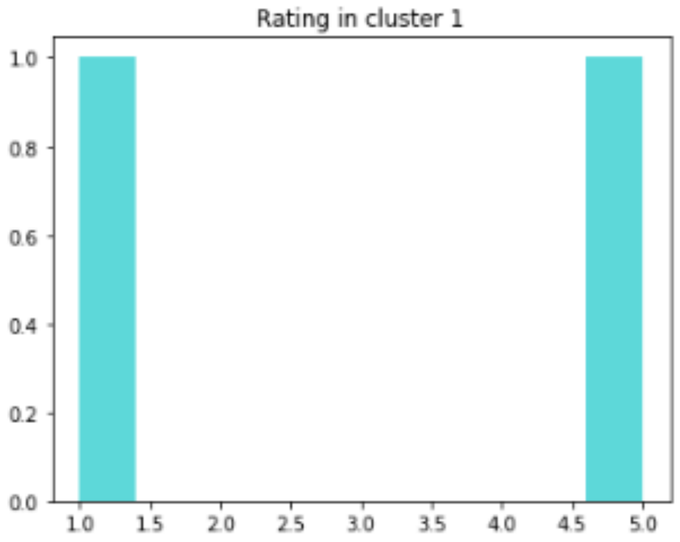
ANALYSIS ON THE RESULT:

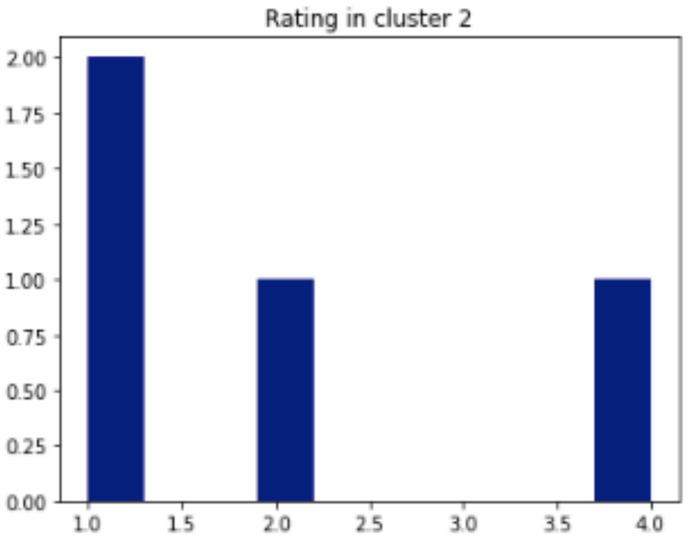












DISCUSSION:

It is noticed that a lot of restaurants are present around areas such as Indranagar , Koramangala etc. It is also noticed that Indian restaurants are the most preferred as there is a lot of restaurants in this category. This shows that people enjoy Indian cuisine more than any other. The seems to a demand for other south India cuisines such as Kerala, Karnataka etc. This is seem as a large variety of people from all over the country are found in Bangalore.

The most preferred cluster would be cluster 0 as it contains the restaurants with good rating.

CONCLUSION:

The main purpose of this project is to determine areas in Bangalore with restaurants with good ratings.
This would be helpful for a person that is new to the city and is finding a locality with good food that is suitable for that individual. It also explain the different categories of cuisines available in the city and the ratings of those restaurants.

If an individual is searching to settle down in Bangalore and if he wants to live in locality here he would have easy access to the restaurants of his choice then this project would be able to provide them the required information.

THANK YOU