Coursera Capstone

Goa Restaurant Business

INTRODUCTION

- In this project, we are trying to analyze the localities of Goa, so that appropriate recommendation for opening new restaurant to the stake holders can be made.

- Goa is a tourism hotspot of India, It attracts tourists from across the India as well as abroad, the scope of Restaurant business is only increasing.
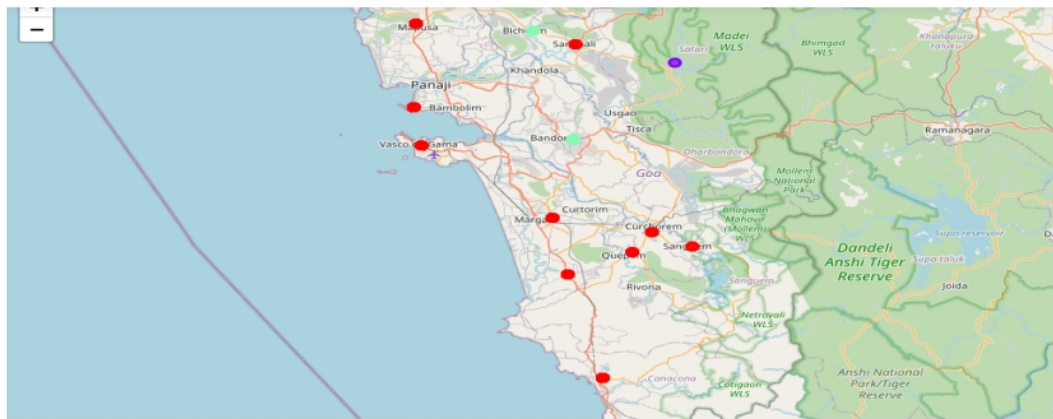
DATA

- List of cities in Goa can be found on this wikipedia page

- Geocoder package is used to get the latitude and longitude of these cities

- We have used Geocoder package to get the latitude and longitude of these cities by sending city name to the api, This helps us in plotting this cities over the map

- Folium Map is used to plot cities over the map

- We have used folium maps library to plot the cities over the map, this helps in visuslization of the clusters of cities

DATA

- Foursquare API is used to find locations the neighborhood of these cities

- We have used KNN algorithm from sklearn package to do the clustering of the cities aftern onehot encoding the city neighbors based on the venues

- Cities in Goa were collected along with latitude and longitude.

- We used Fourquare API to collect all venues near each cities in the range of 2 kms, then we one hot encoded all the venues for good model accuracy, then we used KNN alogorithm to segment cities based on similarities.

RESULT

- Here's the list of top two kinds of restaurant business in each city

```
----Bicholim----
                  venue  freq
0    Indian Restaurant  0.33
1  Chinese Restaurant   0.00


----Canacona----
                  venue  freq
0   Indian Restaurant   0.1
1           Restaurant   0.1


----Cuncolim----
                  venue  freq
0    Indian Restaurant  0.12
1  Chinese Restaurant   0.00


----Curchorem----
                   venue  freq
0  Fast Food Restaurant  0.17
1    Chinese Restaurant  0.00
```

Goa is a small tourist place, but we do have a lot of headroom when it comes to restaurant business,

In Sanguem city, There are no prominent Restaurant

In Valpoi and Sanquelim city, only Indian Restaurants are there, coming to the massive number of tourists who visit Goa, There is a great scope of investment in this area

In pernem, quepem and sanguem city, only prominent resturants are there, This also brings huge oppurtunity