Opening of a new Indian food restaurant in Pune city

COURSERA CAPSTONE

IBM APPLIED DATA SCIENCE

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Outline

Business Problem

- Location of restaurant, specifically Indian food restaurant need to be open in Pune city

- Objective is to analyse best suitable location for India food restaurant

- Problem Statement is:

    "Best suitable location to open Indian food restaurant in Pune city."

- The target audience for this project is a businessman who is willing to invest in any location regardless of the property cost. Or for someone who is trying to extend his Indian food restaurant chain in Pune city.

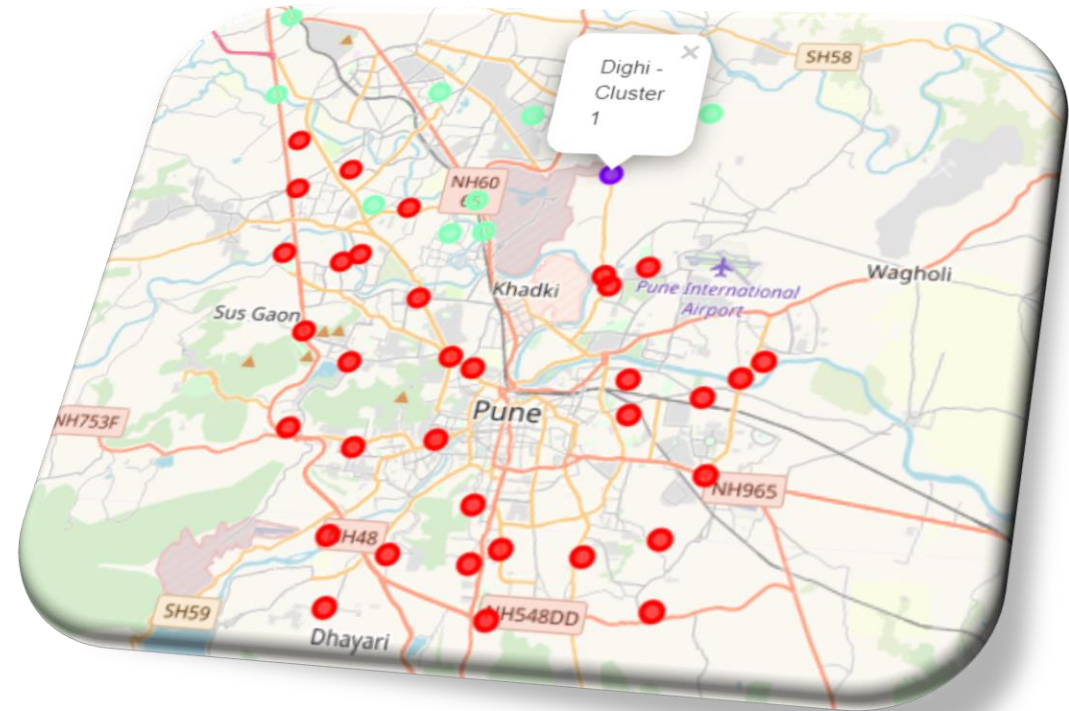- For small investors, this may not be a good idea.

Data

- List of neighbourhoods from *Wikipedia.*

- Coordinates (Geocoder Python) using *OpenStreetMaps.* But I have decided to shift to *HERE*[4] maps API for better accuracy.

- Restaurant venues using *Foursquare API*

Methodology

- From Wikipedia list of neighbourhoods will be generated

- Using Geocoders their co-ordinates will obtained.

- Zipping both together we will plot them on map using Folium maps.

- Then for all neighbourhoods venues will be captured using Foursquare.

- From that data only Indian Restaurant category will be used.

- We use K-means clustering machine learning process and obtain the result.

- Result can be seen on map.

Result

- Cluster 0: Neighbourhoods with a moderate number of shopping malls in red colour

- Cluster 1: Neighbourhoods with a low number to no existence of shopping malls in purple colour

- Cluster 2: Neighbourhoods with a high concentration of shopping malls in light green colour

Discussion

- Pune city has so many Indian food restaurants located all over the places.

- A moderate number of restaurants can be found all over the Pune city i.e. Cluster 0. A very high number of restaurants are in little outskirts. Probably, there was pretty much free or open space previously i.e. Cluster 2.

- Hardly any restaurant can be seen in Cluster 1. So if anyone wants to open a new restaurant Cluster 1 is the best suitable location.

- Also, those who are trying to extend their food chain restaurant, they can also invest in Cluster 0. But investor/businessman is highly suggested to avoid Cluster 2 since they will have intense computation already.

Conclusion and Recommendation

- Ultimately suggestion has given to open a new Indian food restaurant in Pune city.

- It is concluded that the following areas as shown in the image are the best areas to open a new Indian food restaurant.

- Hence Dighi is the only recommended location for new businessman.

	Neighborhood	Indian Restaurant	Cluster Labels	Latitude	Longitude
13	Dighi	0.8	1	18.61522	73.87241

Thank You