BEST AREAS TO OPEN NEW SHOPPING MALLS AND SHOPPING PLAZAS IN TEXAS

By: Moushumi Zaman

Introduction

- **Business problem:**

    In Texas, USA, if a developer is looking to open a new shopping mall, where would be your recommendation to open it?

- **Target Audience:**

    property developers and investors looking to open new shopping malls and plazas in the state of Texas, USA.

Data

- **Data Needed**

- List of cities in Texas, USA. This defines the scope of the project.

- Latitude, longitude coordinates of the cities. This is required in order to plot the map and to get the venue data.

- Venue data, specially data related to shopping malls and shopping plazas. I used this data to perform clustering on the cities.

Data (Continued...)

■ **Data sources**

○ List of Texas cities ranked by population from the Wikipedia page

https://en.wikipedia.org/wiki/List_of_cities_in_Texas_by_population

○ Geographical coordinates of the cities by using Pyhton Geocoder package

○ Foursquare API to get the venue data for those cities

Methodology

- **Getting the list of the cities**

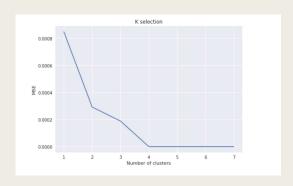   https://en.wikipedia.org/wiki/List_of_cities_in_Texas_by_population

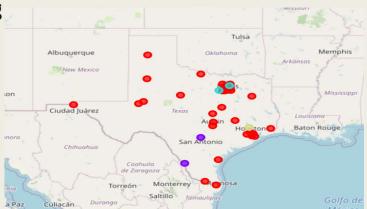- **Getting the coordinates of the cities**

    Python Geocoder package

- **Foursquare API to get the venue data**

Methodology (Continued...)

■ **Finding the number of clusters**

   4 clusters is the best option

■ **Clustering**

Results

1. **Cluster 1:** This cluster has the most number of shopping malls and plazas and the best one to invest

2. **Cluster 2:** This cluster has the moderate number of shopping malls.

3. **Cluster 3:** This cluster also has a moderate number of shopping plazas.

4. **Cluster 4:** This cluster has the least number of shopping facilities

Discussion

- The high cluster area means there are so many shopping facilities already established in this area, which makes it more competitive and less appropriate for new investments. Thus cluster 1 in this project is recommended to be avoided

- Cluster 4 is a low cluster area. That means in this area there are very few shopping facilities, which makes it more attractive for new investments. Cluster 1 is recommended to be invested in

Conclusion

- Answer to the question: The cities in cluster 4 are preferred to invest for new shopping facilities

- Findings of this project will help relevant stakeholders to capitalize on the opportunities on high potential locations while avoiding overcrowded areas in their decisions to open a new shopping facility.