Week 4

Now that you have been equipped with the skills and the tools to use location data to explore a geographical location, over the course of two weeks, you will have the opportunity to be as creative as you want and come up with an idea to leverage the Foursquare location data to explore or compare neighborhoods or cities of your choice or to come up with a problem that you can use the Foursquare location data to solve.

1) Introduction/Business Problem

The idea of this study is to guide people planning to open a new restaurant in Bucharest to choose the right location by providing data about the income and population of each neighborhood as well as the competitors already present on the same regions. It will help to guide which type of restaurant to open and which neighborhoods are good option.

2) Downloading and Prepping Data

To provide the businesspeople the necessary information I have used below data:

• I got the sector data of Bucharest from Wikipedia [1]
• I got the neighborhood data of Bucharest from Wikipedia [3]
• I used python geocoder library to get geographical coordinates of neighborhoods[4]
• I used Foursquare API venues explore method to get the venues of given neighborhoods of Bucharest [5].
• I used Foursquare API venues method to get ranks and likes of restaurants by given venue id [5].

In this project, the goal is to find which place is good for opening Eastern European Restaurant in Bucharest, Romania

- Converting address data into their equivalent latitude and longitude values.
- For Bucharest neighborhood data, I will use wikipedia , https://en.wikipedia.org/wiki/Category:Districts of Bucharest
- Using the Foursquare API to explore Bucharest neighborhoods and to get venues in neighborhoods.
- Using the Foursquare API to get venue ratings and likes in neighborhoods.
- Using the k-means clustering and Agglomerative algorithms to complete clustering task.

- Using the Folium library to visualize the neighborhoods, venues , clusters in Bucharest.

References:

- [1] Bucharest — Wikipedia
- [2] Mercer's Quality of Life Survey
- [3] Category:Districts of Bucharest
- [4] Python Geocoder Library
- [5] Foursquare API