

Capstone Project - The Battle of Neighborhoods



1. Business Problem and Background:

Ukrainian dishes are known for their variety and high taste qualities. They have rich history, which would help a new Ukrainian restaurant become popular in such a diverse place as New-York.

There are only 6 Ukrainian restaurants in New-York, which means that this business niche is not saturated and can support another restaurant. The business plan is to open a new Ukrainian place and the following are the important questions that need to be answered in detail before starting the business:

What are the locations of Ukrainian restaurants in New York?

What is the ratio of Ukrainian places to the total number of restaurants?

Where is the most dense area for restaurants?

What is the most dense neighbourhood for Ukrainian restaurants?

What is the rating of the Ukrainian restaurants?

2. Data Source and Description:

New York neighbourhood data will be obtained via web scraping. The geographical longitude and latitudes of each neighbourhood will be obtained using 'geopy.geocoders' python library. The location data will be obtained from the 'foursquare.com' data base and will be based on the geographical coordinates. The registered credentials of foursquare API will be used for obtaining the venues, users, rating, tips, etc. data. This section will be done through the following steps:

1. Find the neighbourhoods
2. Obtain the geographical coordinates
3. Get location data from foursquare API
4. Clean the data and create data frame
5. Explore and analyse each neighbourhood
6. Make a data frame for Ukrainian restaurant
7. Group by a neighbourhood
8. Clustering neighbourhoods using K-means clustering
9. Visualising the resulting clusters
10. Making recommendation for a Ukrainian restaurant location