

The Battle of Neighborhoods – Week 4

The business problem was submitted in a previous report. In brief, the business problem was to identify locations with good Korean restaurants, where my Korean clients can move to, in New York. So I have collected data that will help in this project, which includes geographical data (with latitude and longitude) and details of Korean restaurants with customer ratings from foursquare API, based on the latitude and longitude (obtained from geographical data). Locations of restaurants with good customer ratings will be recommended to Korean clients.

Data, Source, and Information in the Data

For this project we need the following data:

No.	Data	Data Source	Data Features/Information extracted from Data
1	New York City data that contains list Boroughs, Neighborhoods along with their latitude and longitude.	https://cocl.us/new_york_dataset	This data set contains the information about latitude and longitude of various boroughs and neighborhoods. And we will use this data set to explore various neighborhoods of new york city.
2	Korean restaurants in each neighborhood of new york city	Foursquare API	By using this api we will get all the venues in each neighborhood. We can filter these venues to get only Korean restaurants.
3	GeoSpace data	https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tq-mj-j8zm	By using this geo space data we will get the New york Borough boundaries that will help us visualize choropleth map

Approach

- Collect the new york city data from https://cocl.us/new_york_dataset
- Using FourSquare API we will find all venues for each neighborhood
- Filter out all venues that are Korean Restaurants
- Find rating , tips and like count for each Korean Restaurants using FourSquare API
- Using rating for each restaurant, we will sort that data
- Visualize the Ranking of neighborhoods using folium library(python)

Questions that can be asked using the datasets noted earlier:

- What is best location in New York City for Korean Cuisine ?

- Which areas have potential Korean Restaurant Market ?
- Which all areas lack Korean Restaurants ?
- Which is the best place to stay if I prefer Korean Cuisine ?

Analysis

We will import the required libraries for python.

- pandas and numpy for handling data.
- request module for using FourSquare API.
- geopy to get co-ordinates of City of New York.
- folium to visualize the results on a map

Results

Based on the analysis, I can figure out the neighborhood with Korean restaurants which have good ratings, which I can recommend to my client.