Capstone Project: The Battle of Neighborhoods Week1 |Part 1 Data Description

{Picking the right location for a new vegan restaurant in New York}

Data Description

For this project will be restricted to New York City. To perform this analysis, we will need to obtain data from the following sets:

1. New York Data (Boroughs & Neighborhoods)

   The first Dataset we will be using would contain all the required geographical data about New York City. Namely, we would be using 'Borough', 'Neighborhood', 'Latitude', and 'Longitude' among all the other data elements present in the data. For our convenience, we would be using the same data set which was provided to us in Week 3 of this course: newyork_data.json -> https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDeveloperSkillsNetwork-DS0701EN-SkillsNetwork/labs/newyork_data.json

2. Geo-coordinates of the districts in New York City

   Geo-coordinates of districts will be obtained with the help of the geo-coder tool in the notebook. New York City has a total of 5 boroughs and 306 neighborhoods. In order to segment the neighborhoods and explore them, we will basically need a dataset that contains the 5 boroughs and the neighborhoods that exist in each borough, as well as the latitude and longitude coordinates of each neighborhood. The 'Latitude' and 'Longitude' extracted from this dataset will also be pivotal when we use to it perform Clustering using K-Means. All the relevant data is in the features key, which is essentially a list of the neighborhoods. If we dive into the elements of this features key, we will find all of its components.

3. Four Square City Guide Data - Top venues of districts

Foursquare City Guide is a local search-and-discovery app which provides search results for its users. The app provides personalized recommendations of places to go near a user's current location based on users' previous browsing history and check-in history. By using the Foursquare API, we can search for specific type of venues or stores around a given location; we can obtain more information about a specific venue or store, such as their full address, their working hours, and their menu and so on. Furthermore, with the Foursquare API, we can also explore a given location by finding what popular spots exist in the vicinity of the location. Finally, we can explore trending venues around a given location. At this point we must note that, these are venues with the highest foot traffic at the time this regular call to the API is made.