

Capstone Project - The Battle of Neighborhoods (Week 1)

- **Data Selection**

To identify the characteristics of our competitors' venues in Manhattan, we would first need to find out the number of sushi bars in Manhattan currently and their location. We then used Google Map API to find their geographic coordinates based on their postal code addresses. According to code result, there is 1763 sushi bars are currently operating in Manhattan. Next, we also used Google Map API to find their geographic coordinates of the 5 locations shortlisted for our sushi bar.

- **Methodology**

Addresses are converted into their equivalent latitude and longitude values. Foursquare API is used to explore neighborhoods in Manhattan, New York. Exploring function to get sushi restaurant categories in each neighborhood. Then using this feature to group the neighborhoods into clusters K-means clustering algorithm will be use to complete this task. And also, the Folium library to visualize the neighborhoods in Manhattan and its emerging clusters. Using K-mean to clustering data area with less number of sushi bars.