# Problem Description and Background:

In the city of New York, a famous fast food chain is looking to open a restaurant. This famous fast food chain company namely Grandma’s Kitchen is looking for recommendations from ABC data science company. The problem the stakeholders are facing is that they currently do not know how many similar food chains are in New York City and how are they functioning and what is the competition etc. This business is trying to expand their business in Sacramento and would like to get the recommendations for their branch setup.

# Description of data and its use to solve the above problem:

The data I am going to use is the data available on the foursquare website and using the Foursquare API to explore restaurants in New York City. I will use the **explore** function to get the most common food chain restaurants in this New York city and then use this feature to group the restaurants into clusters. I will use the ***k*-means clustering** algorithm to complete this task. Finally, I will use the **Folium** library to visualize the food chain restaurants in New York City and their emerging clusters. This visualization will help me decide and suggest the best neighborhood to grandma’s kitchen for the setting up their new plant in the city of New York.