**Understanding the Chinese Restaurant Market In New York City**

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**1. Introduction/Business Problem**

A Chinese restaurant chain are looking to open a new restaurant in New York City, and they need to understand where the best place would be to do this. Tourists are the target market. They need to find out which neighborhoods are the most densely saturated with hotels, where clusters of restaurants are, and how Chinese restaurants specifically are spread throughout the city.

**2. Data**

In order to segment and understand the neighbourhoods of New York, data the number of neighbourhoods and longitude and latitiude of each will be needed. The data from the following dataset will be used for this: <https://geo.nyu.edu/catalog/nyu_2451_34572>

Foursquare location data will be used to solve this problem. The following variables will be used specifically:

* Hotel addresses, names and coordinates to understand where clusters of hotels are placed throughout the city
* Restaurant addresses, names and coordinates to understand where clusters of restaurants are in close proximity to the hotels
* Restaurant categories and locations, specifically Chinese restaurants, to identify where demand might be

**3. Methodology**

I began by identifying a specific point in New York City from which to explore nearby Chinese restaurants, as it would not be possible to retrieve data on all Chinese restaurants across the whole of New York City from the Foursquare database. I then created a search query to the Foursquare database with a radius of xxxx from this point.

I created a dataframe with this data so I could view and understand it. I then created a folium map and plotted the results from my search query on the map. This allowed me to visualise the Chinese restaurant market across New York City.

**4. Results**

The dataframe shows the name, category and location of each venue. As you can see in the notebook, other types of venues such as churches have filtered through here, so further work needs to be done to clean the data so it displays restaurant venues only.

The map illustrates how restaurants are spread across central New York City. It shows that downtown Manhattan has the highest density of Chinese restaurants.

**5. Conclusion**

Because downtown Manhattan has the highest density of Chinese restaurants in New York City, it is recommended that the restaurants owners look to this area to open their restaurant. Further work such as a cluster analysis could be beneficial to identify more detailed clusters of restaurants according to more specific attributes, which would allow the restaurant chain to more effectively target to their desired audience.