**Business Problem**

This project primarily deals with exploration and segmentation of neighborhoods in the city of London, United Kingdom.

I’m targeting investors and/or potential individual owners who are looking to invest in a restaurant business.

By means of this project, I’ll be focusing on aspects such as property price, population density and cuisine to facilitate the decision making process of our customer.

Using various data sources from the internet and by exploiting the location data facility of the foursquare API, I’ll begin by helping the customer narrow down his search for an appropriate location by considering the boroughs of London and discriminating on the basis of average property price and population density.

Once I have finalized the borough, I’ll explore its neighborhoods using the foursquare API to provide insights into what type of cuisine the residents typically enjoy, using which , I’ll cluster the neighborhoods into different categories. Our customer can then refer to these clusters which might help him decide what type of cuisine they would want their restaurant to serve and in which neighborhood they’d like to establish their business.

**Data**

Initially, the table of London Boroughs would be constructed by scraping the webpage <https://en.wikipedia.org/wiki/List_of_London_boroughs>

Their population densities would be scraped from their respective Wiki pages.

Further, I’ll use <https://www.foxtons.co.uk/living-in/> to extract the approximate property prices in the respective boroughs.

Once I have this data in the form of a table, I’ll choose the borough which best suits the budget requirement of the customer and has a reasonable density of population so as to expect a decent footfall.

Once the borough is finalized, I will construct a table which will contain the districts of the borough and their coordinates which would be fetched using the *geocoder* library of python.

Finally, I’ll use the *search* endpoint of the Foursquare API to get a list of restaurants in each neighborhood and construct a table with the columns indicating the type of restaurant(Indian,Japanese,Café,etc) and the rows indicating the neighborhood. Finally I’ll cluster these neighborhoods and display the most popular restaurant themes in each neighborhood within the clusters. This would help our customer narrow down their choice of neighborhood and the type of cuisine they wish to serve at their restaurant