1) Introduction

Identifying the best location for a business can be a difficult exercise. This is particularly true for restaurant chains which might not have prior knowledge to local markets in specific areas. Before carrying out more in-depth investigations to find the best suitable place, it would be necessary to already pre-select potential areas of interest. Using some data analysis technique on available data could help in the initial decision-making process.

In this analysis we will use a fictitious restaurant chain wanting to open a new restaurant in Birmingham (UK).

Business Problem
A steakhouse chain would like to identify potential locations to open a new restaurant in Birmingham (UK). Their concept is trendy and attracts a fairly young clientele with their target customers being in age group 21-39.
They have short listed three main requirements:

- They would like locations close from where their target customers (age group 21-39) reside but also near areas with a high volume of working population. The aim is to maximise the catchment area insuring a mix of local residents and workers. Locals would likely be more active during the evenings in a working week and at the weekends whereas workers would be more active during lunchtime and potentially some evenings in a working week.

- The areas around the locations should be ideally where the spending in restaurants by the residents in the target group is high.

- The potential locations should be places with already established restaurants. In the restaurants market, the more the offer the more the customers. Only niche restaurants (high end usually) can afford to be “out of the beaten tracks”.

How can we help this company to short list the best areas in Birmingham?
We will use some data from the ONS (Office of National Statistic) together with data from Foursquare and apply some data science methodologies such as clustering to identify restaurant hotspots in Birmingham and short list locations that appear suitable.