

# Capstone Project – The Battle of Neighbourhoods (Week 1)

## Description of the project

We want to open an Italian restaurant in London, the task is to decide the most convenient place. We consider the town of London divided into its boroughs. The tentative location for the new restaurant will be a generic place within one mile from the centre of the borough. The problem therefore reduces to identifying the most convenient borough. To this end we consider the following parameters:

1. Number of Italian restaurants already present (the fewer the better);
2. Average income of each borough (the higher the better);
3. The population of the borough (the more populated the better);
4. The presence of amenities around like cinemas and theatres (the more the better);
5. The presence of universities around (the more the better).

## Methodology

We will scrap the web for the information needed, and in particular:

- [https://en.wikipedia.org/wiki/London\\_boroughs](https://en.wikipedia.org/wiki/London_boroughs) for the list of London boroughs;
- <https://data.london.gov.uk/dataset/earnings-place-residence-borough> for the average income in each borough;
- <https://www.citypopulation.de/en/uk/greaterlondon/> for the population of each borough.

We will use [GeoPy](#) to retrieve the location of the centre of each borough and Foursquare API to determine the points of interest (cinemas, theatres and universities) around the centre. Data analysis will be carried out on Pandas.

The final objective is to determine a ranking of boroughs for the new restaurant, from the most to the least suitable one. The ranking will be based on the features listed above (1—5). We make the simplifying assumption that each feature will weigh the same in determining the global ranking. Therefore, we will compute a rank for each feature separately and average the results to obtain the overall ranking. Finally, we will show the results on a map using [Folium](#).