# Capstone Project - The Battle of Neighbourhoods

## Data Section:

For our project we need the following data:

- **List of countries by GDP (nominal)**
  - **Source: https://en.wikipedia.org/wiki/List_of_countries_by_GDP_(nominal)**

We will use these data in order to find the to 10 countries with the highest GDP

- **List of unemployment rate by country**
  - **Source: https://en.wikipedia.org/wiki/List_of_countries_by_unemployment_rate**

We will use these data in order to find the to 10 countries with the lowest unemployment rate

- **Scraping Tokyo Wards Table from Wikipedia**
  - **Source: https://en.wikipedia.org/wiki/Special_wards_of_Tokyo**

and from other various sources, in order to collect data for further examination

- **Beautiful Soup**

Beautiful Soup package will help us for web scraping.

- **Best places based on preferences**
  - **Source:** Foursquare API

We will get the venue in the selected country/town and use them to choose the best place that fits to our preferences.

- **Geopy geocoders**

Using this built-in function we will be able to gather coordinates for the various places that we will include in our maps.

- **Folium**

To visualize geographic details of our chosen country.

- **K-means algorithm**

To cluster the boroughs. K-Means algorithm is one of the most common cluster method of unsupervised learning. Using this method we will be able to cluster our results per area and examine their properties accordingly.

*** Note:*

Our data list is not limited to the above functionalities. We will use any other proper datasets during the process in order to reach to our final and logical - real life conclusion.