**Data**

In this report, I am going to use the explore function in the Foursquare API to get the most common venues in each neighborhood, which would allow us to compare the different neighborhoods and conclude with which is the most suitable for our purpose.

First of all, I have collected the coordinates for all the Bratislava’s boroughs and neighborhoods from Wikipedia and created a CSV file with latitudes and longitudes. As it is in sexagesimal format, we have to recalculate it and convert those figures to decimal format.

Once we have the coordinates in the proper format, we can proceed to create a pandas dataframe which includes boroughs, neighborhoods and coordinates per neighborhood. Considering the coordinates for Bratislava as center for the map, we can create the map and superimpose the neighborhood coordinates.

Then, we will explore the venues in each neighborhood requesting these details to the Foursquare API and applying longitude, latitude and radius as search limits. We also need to define a function that will get the category of each venue from the json file provided by the API, and to define a function which will iterate over the request function as many times as the number of venues in Bratislava.

Once we have all venues in each neighborhood, we will check how many venues are there per category, calculating the frequency of each of them and ranking the categories by this frequency. These will allow us to compare the neighborhoods.

Finally, we will create neighborhood clusters through k-means, to find which is the group of neighborhoods which contain the broadest variety of restaurants, coffee shops and green zones for the spare time workers may have while they are in the office.