## Battle of Neighborhoods

## Problem description

The business activity within any local market tends to be unevenly distributed, some neighborhoods simply attract more activity than others. Economic development within a neighborhood also tends to have a direct impact on several measures of well-being among its residents.

So, for this reason a fitness expert who is trying to open an own Gym in Toronto, Canada wants to do analysis of the neighborhood in deciding the place to establish the business.

## Data description

The list of neighborhoods in Toronto are fetched from the <u>Wikipedia page</u>. Also, the latitude and longitude of these locations are added by using the geocoder package. By using the foursquare API, we can get a list of various venues that are present in each of the neighborhood. The steps to obtain data are as follows:

- We obtain top 100 venues of each neighborhood in 1000m radius.
  - Using this analyze most common top 10 places of each neighborhood.
  - Then cluster the neighborhoods.
  - o From this clustering we can decide on a subset of neighborhoods for consideration.
- Once we have the first subset of neighborhoods, then we fetch the details of venues which offer physical fitness such as gyms, yoga studios, spas, pools etc.
  - From this data we can analyze and cluster each neighborhood with what type of venues they have and give out a well data backed judgement of the locality to open a gym.