

# **Toronto Cafe Opening**

## **Introduction/Business Problem**

### **Description of the Problem**

In Toronto a well known worldwide firm of cafes is looking to open a cafe. The kind of investigation they need is to select a neighbourhood that has not many cafes, but instead has a lot of other venues, like museums, universities, restaurants etc.

The idea is to investigate the neighbourhoods of Toronto and to sort them according to the desired ratio of number of venues/number of cafes.

The neighbourhood with the highest ratio will be the candidate neighbourhood. This is the simpler approach and the model can be further enriched to include if available demographic data and rent costs.

### **Description of the Data**

For the venues investigation the Foursquare database is going to be utilized by its respective API.

The queried venues will include every kind of venue and cafes will be treated separately.

The different venues will be added together for every district. Then a ratio will be calculated as the ratio of total venues divided by the number of cafes.

In case that no cafes exist, then a division by zero will result to an inf value, however as long as sorting treats inf as the largest possible value this will be permitted.

In case of equal results then the candidate areas will be sorted based on the number of venues. The bigger the number the better considered an area for possible selection.