

## Project presentation

We want to open a new French gourmet restaurant in Toronto. We are looking to open in a rich neighborhood where a very few restaurants are implanted. For that purpose, we need to classify neighborhood in terms of income. We will use 3 neighborhood classifications: 1: Low Income, 2: Medium Income, 3: High Income. We explore the High Income classification and find the neighborhood with the lowest number of restaurants. We will open a restaurant in this neighborhood.

We will take Toronto postal code data and geolocalization data for each neighborhood and demographic data of Toronto from Wikipedia. We will use kMeans to classify neighborhoods by income. We will obtain three classifications which will be analyzed statistically to determine the socio-economic status of each neighborhood. We will then use Foursquare to determine the number of restaurants in each neighborhood. We decide to open a restaurant in a high income neighborhood with the lowest number of restaurants.

Data:

Canada postal code: [https://en.wikipedia.org/wiki/List\\_of\\_postal\\_codes\\_of\\_Canada:\\_M](https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M)

Geospatial data: [http://cocl.us/Geospatial\\_data](http://cocl.us/Geospatial_data)

Population data: [https://en.wikipedia.org/wiki/Demographics\\_of\\_Toronto\\_neighbourhoods](https://en.wikipedia.org/wiki/Demographics_of_Toronto_neighbourhoods)

Foursquare API: number of restaurants in a given neighborhood