A PIECE OF THE PIE

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# Introduction

Before I did a segmenting and clustering assignment , I was totally unaware of dumpling restaurants. I did not know that such thing exists. But there seems to plenty of them in Toronto. - so much so that it featured in a lot of neighborhood’s top 10 lists when I did the K-Means analysis.

I like to see the big picture of everything - perhaps my analytical nature. So it would be contrary to my nature to just jump in and open an italian restaurant- for instance.

So what other kinds of restaurants are there? And is the market not already saturated for a specific kind of restaurant, for instance dumpling restaurants.

My approach would be to first find out what categories of food-places are available and a count of a specific category. Lets assume the count signify market share and popularity.

The categories and count can be determined for a whole city under review like for instance Toronto. The data can then be segmented and clustered into neighborhoods to be useful to make decisions.

## Business Problem / **Who would find this useful?**

An outsider to an area who wants to get involved in the food industry in a particular city and wants a bird’s eye view of the city’s food industry and who the competition will be – because everyone in the industry is competing for a piece of the pie…

# Data

The following data will be used;

## VENUE data from FOURSQUARE.com

Luckily the data is available when accessing the VENUE information from FOURSQUARE.com using the RESTful API “<https://api.foursquare.com/v2/venues/explore>?” to extract the information in .JSON-format.

The following values will be of interest;

* within the Categories dictionary within the Venue dictionary of the .JSON input:
  + name (of the category) in order to group the food-establishment to count them, for instance

'categories': [{'id': '4bf58dd8d48988d110941735',

'name': 'Italian Restaurant',

* + the value following the “categories\_v2” in the prefix-value in the icon dictionary – in order to extract the “food” value so that only the food establishments will be extracted :

'icon': {'prefix': '<https://ss3.4sqi.net/img/categories_v2/food/italian>\_',

* within the Venue dictionary of the .JSON input:
  + the latitude and longetude values – in order to map the establishment to the particular neighborhood.

location': {'address': '2885\xa0Dundas\xa0St.\xa0West',

'**lat**': 43.665303321627505,

'**lng**': -79.46562068004896,

* + The name of the establishment

'venue': {'id': '540f2951498e7516839a7126',

**'name'**: 'nodo',

## Data used to define the neighborhoods from Wikipedia

* The following Wikipedia-webpage provided the Post codes, Neighborhood and Burrough information;T

'<https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M>'

These values are used to;

* + superimpose the neighborhoods onto the map of Toronto, and
  + to extract the venue information from FOURSQUARE using the RESTful API “<https://api.foursquare.com/v2/venues/explore>?”