## Introduction

There is lot of diversity in Canada with people coming from all across the world to stay and live here in Canada. People migrate from different parts of the world to settle here and make a better life for themselves. With diverse people comes diverse cuisine that every Canadian can taste in without having to trouble outside the country.

With this idea, I am planning to use my data science skills and python knowledge to build a recommendation engine that any new business owner can use to understand in part of the city in Calgary, it would be a good idea to open a new restaurant.

## **Business Problem**

In this project I will try to find a location where it would be optimum to open a new restaurant in the city of Calgary, Canada. Since there are lots of restaurants in Calgary we will try to identify those locations where there are less number of restaurants but at the same time, location which is not too far away from the city boundaries. Another interesting view would to see if there are any other specific cuisine restaurants like Italian, Mexican, Indian etc. in the location where I will be recommending it.

## Data Requirements

I will be making use of City of Calgary open source data set that provides list of all neighborhoods in the city. Here is an example of this data set.

Area	Туре	Sector
SUNALTA	RESIDENTIAL	CENTER
WEST SPRINGS	RESIDENTIAL	WEST
HORIZON	INDUSTRIAL	NORTHEAST

Along with that I will be making use of geocoder to extract geographical information of each neighborhood. Finally, I will also be using FOURSQUARE API data to get venue details corresponding to each neighborhood to understand which location would be a good candidate for building a new restaurant.

For example, after getting the neighborhood information of Calgary outside Downtown Core area (where most of the restaurants usually are), FOURSQUARE API data will be used to extract nearby venues for each neighborhood such coffee shops, grocery stores, restaurants. Filtering on the restaurants category, we can get an idea of how many restaurants are in each neighborhood and what type of restaurants are situated.