Battle of the Neighbourhoods - Edmonton

Introduction

The purpose of the project is to look at the various neighbourhoods in Edmonton in order to determine several options of different neighbourhoods to acquire a new office for the organization. In understanding this project it is important to understand the background.

First for those reading this report, Edmonton is the capital city of the province of Alberta and is the fifth largest city in Canada. It is the most northern capital of all the provinces in Canada and has its beginnings in the fur trade. Today Edmonton is the centre of the oil and gas industry, home to Oilers hockey team and the largest mall in North America. Edmonton also has the largest area of urban parkland in North America.

In Edmonton an organization is looking into acquiring a new office space. Over the years this organization has moved around several times and of concern to the staff is that neighbourhood of the new location be safe, have a variety of lunch locations and coffee shops to pick up coffee.

Over the years and currently office locations have been in the following neighbourhoods: Calder, Strathcona, Westmount, McDougall, Eastwood, Strathcona Industrial Park, Grovenor and Strathearn.

Data

- Data will be accessed on the Neighbourhood location in Edmonton. This data will be acquired from the City of Edmonton Open Data Portal. Data regarding the location of neighbourhood centroid will be imported into a Jupyter Notebook in a JSON format.
- Crime data in each Neighbourhood location will be accessed also through City of Edmonton Open Data. However, due to the size of this data it will be download as a CSV file and then imported into the Jupyter Notebook.
- Data on restaurants and coffee shops in each neighbourhood will be accessed using the Four Square Developers API and will be limited to a 1000 meter radius of the centroid point of each neighbourhood.

Essentially we will trying to limit the choices to a few neighbourhoods that have lower crime rates, a higher number of restaurants of which a few of those restaurants need to be coffee shops. This will be done by sorting and limiting the data to the top neighbourhoods as well as visualizing the data using Folium maps and Matplotlib.