Capstone Project – Data Description

The City:

Edmonton is the capital city of the Canadian province of Alberta, which has the world's third largest oil reserves and is one of the major oil & gas producers and exporters. Edmonton is the primary supply and service hub for the province's crude oil industry and other northern resource industries. Because of its dynamic economy, Edmonton has been a very attractive immigration destination city for migrating workers and small business owners from other Canadian provinces and other countries [1, 2].

Data Sources and Collection:

Datasets that will be used for this project include Edmonton Property Assessment Data, Edmonton Neighbourhood Criminal Occurrence and Foursquare API data.

➢ **2019 Edmonton Property Assessment Data** was obtained from the City of Edmonton. In this dataset, the address, type, account number, assessed value, latitude and longitude of each property and the neighbourhood of each property belongs to were provided. The average residential housing value of each neighbourhood was calculated from the assessed value of each property in each neighbourhood. The location of each neighbourhood was identified with its latitude and longitude.

➢ **Edmonton Neighbourhood Criminal Occurrence** was obtained from the Edmonton Police Service. The criminal occurrence in each neighbourhood was reported on monthly, quarterly and annual basis. From these data, the number of crimes each neighbourhood was calculated.

➢ **Foursquare API** will be used as a data source to gain information about near-by places per neighbourhood and to analyze venue presence in each neighbourhood within a radius of 100 meters. The detailed data retrieved from Foursquare contained information of venues within a specified distance of the longitude and latitude of a neighbourhood. The information obtained per venue are:

    ✧ Neighbourhood
    ✧ Neighbourhood Latitude
    ✧ Neighbourhood Longitude
    ✧ Name of the venue e.g. the name of a store or restaurant
    ✧ Venue Latitude
    ✧ Venue Longitude

- ✧ Venue Category

Reference

[1] https://en.wikipedia.org/wiki/Edmonton

[2] https://en.wikipedia.org/wiki/Petroleum_industry_in_Canada