

Introduction/Business Problem

The goal of this project is to help BC residents find neighborhoods that are convenient to live without having a car.

Car insurance in BC is very expensive, which makes it challenging for many BC residents to own a car. It's also challenging for people to rely on public transit in BC because of the long wait for buses and the limited coverage of Skytrain. A convenient neighborhood to live in without a car needs to have enough venues within walking distance. We can get venue data near a neighborhood by using FourSquare's API.

Target audience

The target audiences of this study are

- Current or future residents in BC who don't have a car: the result of this study can help them choose a convenient area to purchase or rent a property
- Realtors who help clients without a car: this study can help inform realtors to make better suggestions to their clients who enjoy the lifestyle without a car
- Residential building developers who want to develop transit-oriented residential buildings: there are many residential buildings target at buyers who are transit-oriented in metro-Vancouver. The model and outcome of this study can help residential building developers choose better locations for their transit-oriented projects.

Data

To solve this problem, I will need below data:

- List of neighborhoods in Metro Vancouver, BC, Canada:
 - The data can be obtained from the geo post codes database: https://www.geopostcodes.com/Greater_Vancouver
 - This page contains the city/neighborhood name, with the postal code. A city/neighborhood can have multiple postal codes.
- Latitude and Longitude of these neighborhoods
 - This data can be obtained by using the postal code to fetch latitude and longitude data from <https://geocoder.ca/> API. The latitude and longitude information for each neighbourhood can be used to retrieve nearby places information from FourSquare API
- Venue data near neighborhoods from FourSquare
 - FourSquare's place API can return nearby places for a pair of latitude and longitude data. The places information they return has a list of attributes, which can be found on this [documentation page](#). The features of place we will retrieve from their API are:
 - Name
 - Location
 - Categories
 - Description
 - Phrases: List of phrases commonly seen in this venue's tips, as well as a sample tip snippet and the number of tips this phrase appears in.

- Tips: Contains the total count of tips and groups with friends and others as groupTypes. Groups may change over time.
- Attributes: Attributes associated with the venue, such as price tier, whether the venue takes reservations, and parking availability.