

Features and Crime Data Mapping of the Neighborhoods in Vancouver

Introduction

Vancouver is the largest city in the west coast of Canada [1]. It is one of the busiest ports, have major business centers, popular tourist spots, ski resorts [1]. This city consistently been ranked one of the top ten livable cities in the world [2]. Every year the city draws large numbers of tourists, visitors and immigrants from almost every corners of the world [3]. For the people who wants to find a place to settle down or rent, open up business opportunities need to know the main features each neighborhood has to offer. It would also be helpful if the most happening crime category of each neighborhood is provided. This information can better help people in deciding their home plan or business opportunities based on the features and crime data of every neighborhoods. Therefore, this project is pushed to provide insights on the main features a neighborhood offers, grouping similar neighborhoods together, listing the most occurring crime and categorizing the neighborhoods to the levels of crime.

Data

The list of Vancouver neighborhoods data was sourced from the website: ftp://webftp.vancouver.ca/OpenData/csv/cov_localareas.csv. To map the neighborhoods geolocations were needed. Geolocation data of the neighborhoods was extracted by a Python library called geopy specifically with Nominatim function. Up to 100 features that includes restaurant, coffee shop, grocery, park, metro and more were extracted from each neighborhoods from the database of Foursquare API [4]. Vancouver neighborhoods crime data for 2018 was accessed through <https://vancouver.ca/police/Planning/2018/2018YEN.pdf> website.