Suburban Living in Bulacan

Manilenos' guide in exploring Alternative Living Outside Metro Manila

A description of the problem and a discussion of the background

Bulacan is Metro Manila's gateway to the Northern Part of Luzon. It is the province within the immediate boundary or Metro Manila from the North. As people increasingly feel the congestion and high cost of living in Metro Manila, Bulacan is increasingly being considered by the workers of the busy Metropolis as an alternative place to live.

This capstone project aims to provide the Manilenos a good idea on what Bulacan has to offer as an alternative place to live. Using available data, it will attempt to provide a glimpse on which areas in Bulacan offers specific types of establishments which Manilenos might find necessary and helpful to guarantee a favorable living condition in a would-be new home. Specifically, it will aim to answer the following:

1. Which towns will provide adequate access basic living necessities such as foods and other essentials?
2. Which establishments may be missed by Manileno' if they opt to move to Bulacan?
3. What perks and incentives can Bulacan provide people for moving to their province?

A description of the data and how it will be used to solve the problem

This project intends to identify the important venues and places in the different towns and cities of Bulacan. To gather these data, we extracted the list of towns and cities from an internet website and transform it into a data frame using python.

The list of Towns and Cities will be used to identify the important geospatial details to describe the locations. Geopy geocoder script was used to identify the coordinates (latitude and longitude) of each town/city.

After identifying the coordinates, the Foursquare API will be used to identify all important venues within the immediate vicinity of each town/city. Venues were reviewed based on their category and location using python. Top 10 venues per Town/city was also identified to provide a view of what are the predominant venues or businesses that are present in each location.

K-means clustering was used to cluster the towns into three. The clustering was done to aggregate the data points and identify similarities among the towns/cities.