Coursera Capstone Project – The Battle of Neighborhoods Week 1

Introduction:

1.1 Background:

Melbourne is the capital and most-populous city of the Australian state of Victoria, and the second-most populous city in Australia and Oceania. Its name refers to an urban agglomeration of 9,993 km2 (3,858 sq mi), comprising a metropolitan area with 31 municipalities, and is also a common name for its city centre. The city occupies much of the coastline of Port Phillip bay and spreads into the Hinterland towards the Dandenong and Macedon ranges, Mornington Peninsula and Yarra Valley. It has a population of 5 million (19% of the population of Australia), and its inhabitants are commonly referred to as "Melburnians".
The coordinates of Melbourne, Australia are 37°48′49″S 144°57′47″E

1.2 Problem:

As one of the biggest multinational cities, we have plenty of immigrants flocking into Melbourne every year. Therefore, where to live becomes one of the most important questions for the new immigrants. In this project, we will analyze the housing price in the suburbs of Melbourne and bring up reasonable recommendations for immigrants who wants to buy of invest in properties industry.

Data:

2.1 Data Sources:

In order to find a solution to our problem, we must be able to obtain data from the subjects below:

- Neighborhood data of Melbourne from Wiki
- Python geocoder library to get geographical coordinates of neighborhood

- Foursqaure API calls to get venues within a 500 meter radius of a given neighborhood
- Foursquare API calls to get ranks and likes of restaurants by given venue id

2.2 Data Usage:

With the neighborhood location values/data I will be able to analyze Melbourne's geographical structure by using the folium library to place points by the longitude and latitude of the neighborhoods.

When it comes to the topic of property, people always say there are 3 keys points to consider, which are "location, location, and location" However, which location is the best? In the project, we will collect the historical housing price for the suburbs in Melbourne, gather developing plans from the government website, also analyze population dense and amenities in target suburbs, and at the end, we will bring up a prediction for the housing price for a couple suburbs.