Battle of the Neighborhood

Introduction

In recent years, more and more people have chances to study abroad, but some students generally have not gone to the destination country before, so that they have some anxiety, such as they are not sure whether the countries, cities or communities are safe. They have no idea, whether there are restaurants, banks, or supermarkets around the neighborhoods, and they do not know how the local people evaluate the community that they will move in. This article or .ipynb file uses the Foursquare API to help the potential students understand the culture and venues around their University. This article takes myself as an example, it is similar to use for other students. For example, I will go to New York University next year. Since I have a scholarship, I do not need to worry too much about my rent. So I mainly consider the safety of the cultures and venues in the neighborhood and the food around the location. Generally speaking, I prefer Chinese food, sushi, Italian Restaurants, pizzerias and ice cream stores, I want to live in a neighborhood that is closer to the university and fits my requirements well.

Who can benefit from the project?

- Students who will study abroad and want to find a good place to live

- Traveler who wants to make a better plan

- Employer who wants to book a hotel for business trip with a specified surroundings

- Other people who want to explore a specified place

Data Requirements and Description

Data that will be required for solving the problem:

1. Download New York City crime data from `https://data.cityofnewyork.us/Public-Safety/NYC-crime/qb7u-rbmr`, in this project we use it as "**NYPD_Complaint_Data_Historic.csv**", It gives all the crime data in New York.

2. Download the New York geojson file from `https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm`, we use it as "**Borough_Boundaries.json**"to visualize the choropleth map, which gives a intuitionistic impression about the quantity of crimes in each borough of New York.

3. Download the New York neighborhood data from `https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm`, we use it as "**newyork_data.json**"to get the data of all neighborhoods in New York.

4. "**crim_manh_data.csv**"is the data of total crime numbers in each neighborhoods in Manhatten, this is a dataframe that I created myself by Data cleaning from **NYPD_Complaint_Data_Historic.csv**.

5. "**cny_crime_neigh.csv**"is the data of crimes with information of neighborhoods, this is a dataframe that I created myself by Data cleaning from **NYPD_Complaint_Data_Historic.csv** and **newyork_data.json**.