

A Data Science Program to Aid a Tourist

Introduction

The program can be used by tourists for determining a hotel of residence, places of landscape to visit, places of shopping, restaurants and cafes. And the data can be displayed in a virtual map created. This is always helpful for travelers new to a region and also helps the travelers to be independent.

Description of Data

The data used in this project is provided by Foursquare location data. The data are grouped by landscape area, and each area included the information about this area and all information about restaurants, cafes, and stores which in this area.

Methodology

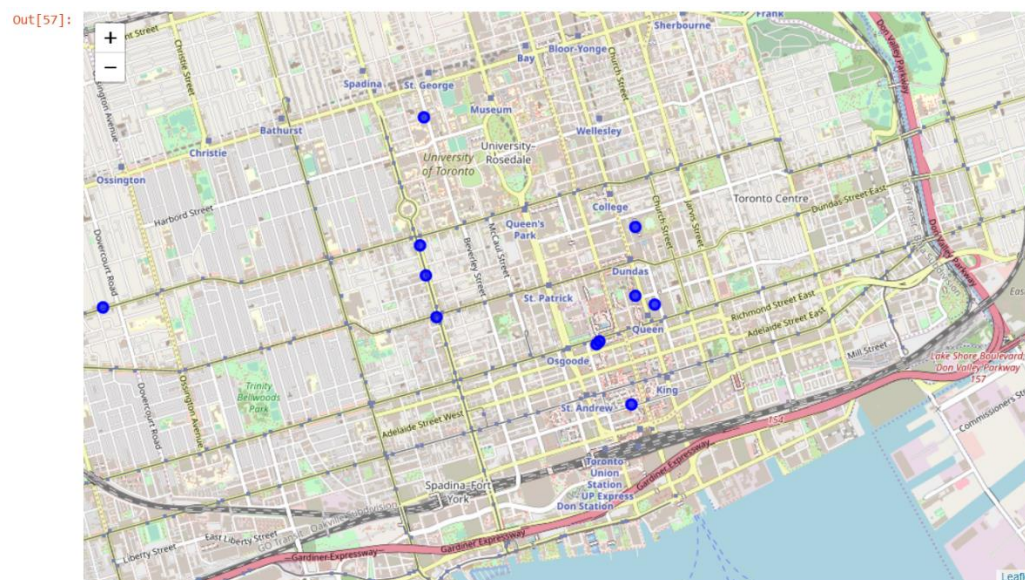
As a database, I used GitHub repository in my study.

I first defined a city(here I took the city of Toronto) and found the latitude and longitude. And with the help of this I send a request to the Foursquare API to get the nearby restaurants, cafes, shopping malls etc and made a data frame for each like the one shown below:

	categories	hasPerk	id	location.address	location.cc	location.city	location.country	location.c
0	[[{'name': 'Hotel', 'primary': True, 'icon': {'...}}	False	4ab2d511f964a5209b6c20e3	123 Queen Street West	CA	Toronto	Canada	at York St
1	[[{'name': 'Jazz Club', 'primary': True, 'icon'...	False	4b68aed1f964a520de862be3	194 Queen St W	CA	Toronto	Canada	Queen & :
2	[[{'name': 'Hotel', 'primary': True, 'icon': {'...}}	False	58b7d72dcc05d161570bd712	123 Queen Street West	CA	Toronto	Canada	NaN
3	[[{'name': 'Hotel', 'primary': True, 'icon': {'...}}	False	52ce14b0498e50457ce11780	108 Chestnut Street	CA	Toronto	Canada	Dundas S
4	[[{'name': 'Hotel', 'primary': True, 'icon': {'...}}	False	4f343a31e4b0230a3b337a90	123 Test Drive	CA	Toronto	Canada	at somewi

Then I deleted the places with insufficient details and also deleted the irrelevant columns to make the data frame compact and easier to understand.

Then I joined all the results to a single data frame and used the the location data in the data frame to plot a map using the Folium module.



Discussion

The tourists going to different places face the difficulty of finding the right places at the right time for the different requirements like accommodation, finding a good place to shop etc. Also, this helps in finding these places even before reaching the destination.

I Mainly used the Foursquare API for finding the nearby places and did the data analysis on the returned json data.

Conclusion

This is perfect for tourists with difficulty in speaking English or in the case when there are lesser number of English speaking people in that country.