A PROGRAM FOR PHOTOGRAPHERS EVENT

By – Vivek

INTRODUCTION

- ABC is a company based in Toronto for organizing events, currently it works on a project to organize an event for 5 days for a group of photographers from all over the world.

- The company has to put a good program, including a hotel of residence, a hall for meetings, places of landscape to visit, stores for shopping, restaurants and cafes.

- So the company's purpose is to make a list of places of landscape in Toronto, including the nearest restaurants, cafes, and shopping stores for each place.

DATA DESCRIPTION

- 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.

01- IMPORT LIBRARIES

➢ import requests # to handle requests

➢ import pandas as pd # for data analsysis

➢ import numpy as np # to handle data in a vectorized manner

➢ from geopy.geocoders import Nominatim # module to convert an address into latitude and longitude values

➢ from IPython.display import Image # libraries for displaying images

➢ from IPython.core.display import HTML   # libraries for displaying images

➢ from pandas.io.json import json_normalize # tranforming json file into a pandas dataframe library

➢ import folium # plotting library

02- DEFINE FOURSQUARE CREDENTIALS

- Credentials:

- Foursquare_ID:
MKBS33KBHGHJVC1M0PW0RWACML2BFOZWGO2510DRO4WHPQSD

- Foursquare_Secret:
US0VTVDIKKB253MYPLRG5KOITMAOGXQ2SRNYKL5B1HYQN05M

- Version : 20200525

03- DEFINE THE CITY AND GET ITS LATITUDE & LONGITUDE

- city = 'Toronto'

- Latitude = 43.6534817

- Longitude = -79.3839347

04- SEARCH FOR HOTELS & CLEAN DATAFRAME

- Searched Hotels in 500 m radius by using Foursquare API and cleaned the Hotel Dataframe

	name	categories	address	lat	lng	postalCode	state
0	Chelsea Hotel	Hotel	33 Gerrard Street West	43.658498	-79.383097	M5G 1Z4	ON
1	Sheraton Centre Toronto Hotel	Hotel	123 Queen Street West	43.650594	-79.384530	M5H 2M9	ON
2	Pantages Hotel & Spa	Hotel	200 Victoria St	43.654498	-79.379035	NaN	ON
3	Crew Room Eaton Chelsea Hotel	Hotel	33 Gerrard Street West	43.658094	-79.382711	NaN	ON
4	Cosmopolitan Toronto Centre Hotel & Spa	Hotel	8 Colborne St	43.649064	-79.377598	M5E 1E1	ON

05- SEARCH FOR PARKS & CLEAN DATAFRAME

- Searched Parks in 10000 m radius by using Foursquare API and cleaned the Parks Dataframe

	name	categories	address	lat	lng	postalCode	state
8	Queen's Park	Park	University Ave.	43.663946	-79.392180	M5R 2E8	ON
13	Trinity Bellwoods Park	Park	1053 Dundas St. W.	43.647072	-79.413756	M5H 2N2	ON
16	Riverdale Park West	Park	500 Gerrard St.	43.666048	-79.360941	M5A 2H3	ON
22	Barbara Hall Park	Park	519 Church St	43.666879	-79.381068	M4Y 2K9	ON
25	Riverdale Park East	Park	550 Broadview Ave	43.669951	-79.355493	M4K 2P1	ON

06- SEARCH FOR RESTAURANTS & CLEAN DATAFRAME

- Searched Restaurant in 10000 m radius by using Foursquare API and cleaned the Restaurant Dataframe

	name	categories	address	lat	lng	postalCode	state
0	Hemispheres Restaurant & Bistro	American Restaurant	110 Chestnut Street	43.654884	-79.385931	M5G 1R3	ON
2	Victoria's Restaurant	Restaurant	37 King Street East	43.649298	-79.376431	M5C 1E9	ON
3	Rol San Restaurant 龍笙棧	Dim Sum Restaurant	323 Spadina Ave.	43.654318	-79.398650	M5T 2E9	ON
4	Studio Restaurant	Breakfast Spot	389 Church St.	43.661500	-79.379319	M5B	ON
5	Victor Restaurant & Bar	Bar	30 Mercer Street	43.645634	-79.391125	M5V 1H3	ON

07- SEARCH FOR CAFETERIA & CLEAN DATAFRAME

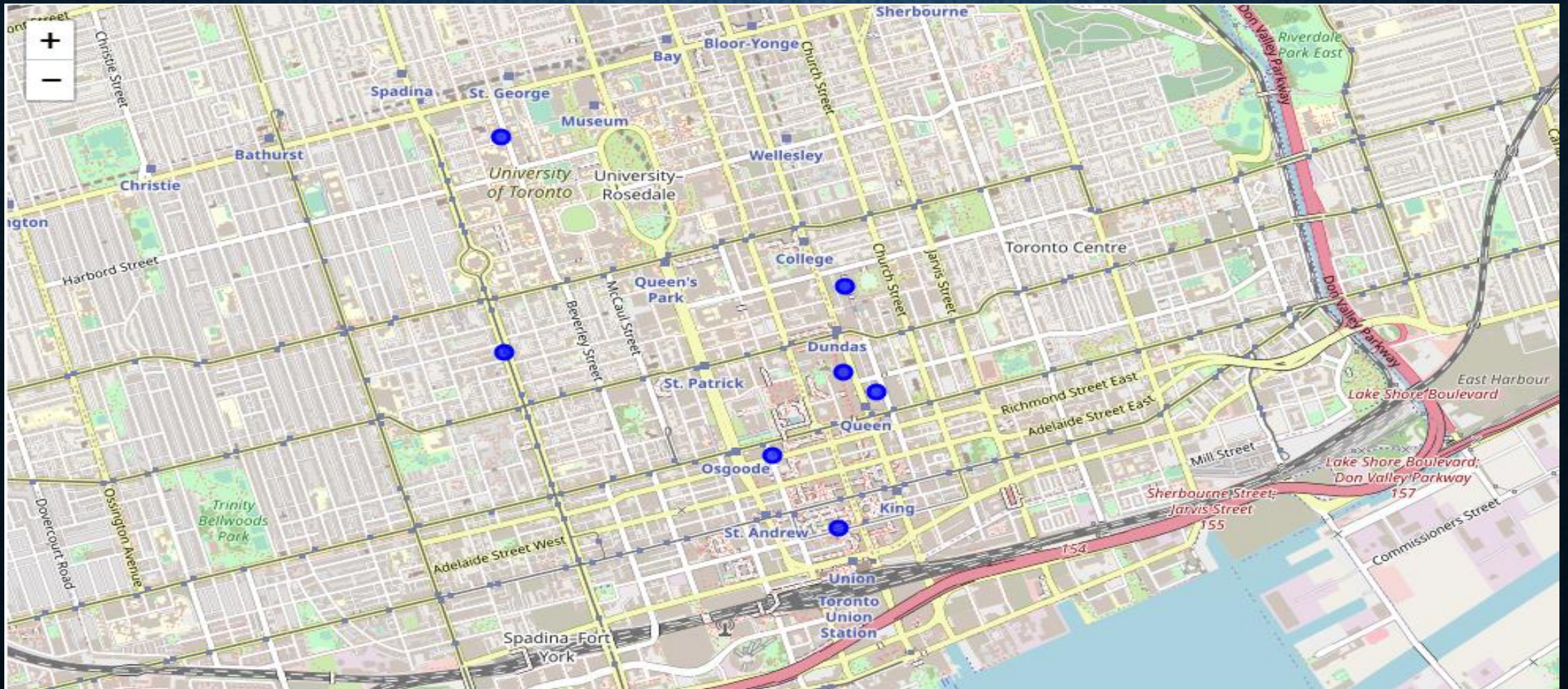- Searched Cafeteria in 10000 m radius by using Foursquare API and cleaned the Cafeteria Dataframe

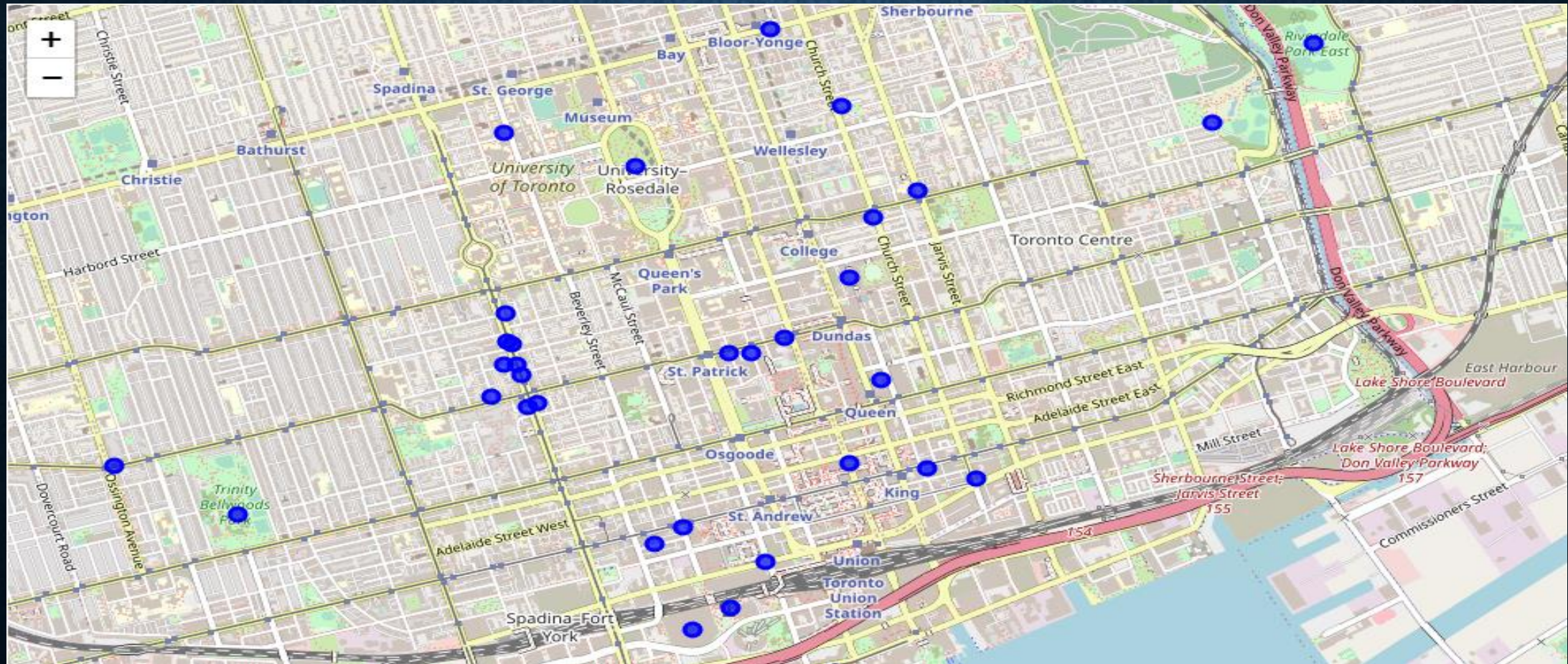|	name	categories	address	lat	lng	postalCode	state
1	Stay Cafeteria 慢走	Asian Restaurant	388 Spadina Ave	43.655454	-79.399163	ON	M5T 2G5
9	De La Salle College Cafeteria	College Cafeteria	131 Farnham Avenue	43.683003	-79.397815	ON	M4V 1H7
19	Marketeria	Restaurant	30 Bond St.	43.653585	-79.378843	ON	M5B 1W8
21	The Hub	College Cafeteria	350 Victoria St.	43.658585	-79.380622	ON	M5B 2K3
24	Innis College	Student Center	2 Sussex Ave	43.665556	-79.399298	ON	M5S 1J5
27	6th Floor Cafeteria 12 Concorde Place	Café	12 Concorde Place	43.721861	-79.329339	ON	m3c 3k7

08- SEARCH FOR SHOPPING STORES & CLEAN DATAFRAME

- Searched Shopping Stores in 1000 m radius by using Foursquare API and cleaned the Shopping Stores Dataframe

	name	categories	address	lat	lng	postalCode	state
1	TD Centre Shopping Concourse	Shopping Mall	66 Wellington St W	43.647184	-79.380932	M5K 1A1	ON
2	CF Toronto Eaton Centre	Shopping Mall	220 Yonge St	43.654540	-79.380677	M5B 2H1	ON

10- GENERATE MAP TO VISUALIZE PARK, RESTAURANT AND CAFETERIA AND HOW THEY CLUSTER TOGETHER