Finding Coffee shops in Berlin

Coursera Capstone Project

Data finding and using

01
FINDING THE LOCATION (LAT,LONG) FOR THE CENTER OF BERLIN (ALEXANDER PLATZ)

02
USING FOURSQUARE TO SEARCH FOR WHAT WE WANT AND, IN THIS PROJECT, WE ARE SEARCHING FOR COFFEE SHOP

03
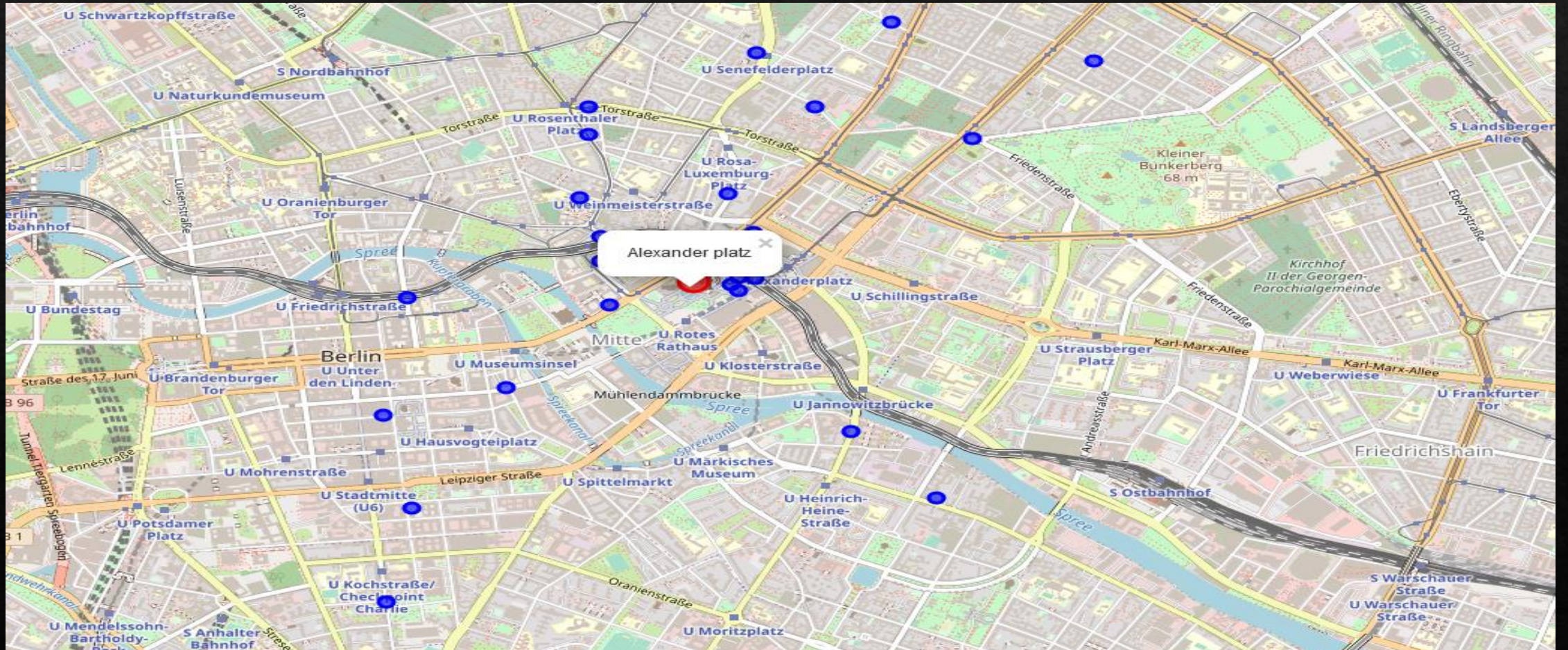WE WILL CLEAN AND FILTER OUR DATA TO ANALYSE THEM AND VISUALIZE THEM WITH FOLIUM

THE DATA THAT WE GOT

	name	categories	address	lat	lng	labeledLatLngs	distance	postalCode	cc	neighborhood	city	state	country	formattedAddress	crossStreet	id
0	Coffee Fellows	Coffee Shop	Rosa-Luxemburg-Str. 2	52.522656	13.409790	[{'label': 'display', 'lat': 52.52265601136413...	220	10178	DE	Mitte	Berlin	Berlin	Deutschland	[Rosa-Luxemburg-Str. 2, 10178 Berlin]	NaN	514453f5e4b071f0e0e0a123
1	T2 Breakfast & Coffee	Breakfast Spot	Litfassplatz 3	52.521933	13.403187	[{'label': 'display', 'lat': 52.521933, 'lng':...	377	NaN	DE	NaN	Berlin	Berlin	Deutschland	[Litfassplatz 3, Berlin]	NaN	5d31865fd1b9890007ade245
2	Impala Coffee	Coffee Shop	Schönhauser Allee 173	52.532549	13.412092	[{'label': 'display', 'lat': 52.532549, 'lng':...	1325	10119	DE	NaN	Berlin	Berlin	Deutschland	[Schönhauser Allee 173 (Schwedter Str.), 10119...	Schwedter Str.	4ba898d4f964a520c4e139e3
3	snack'n coffee	Bakery	Alexanderplatz	52.521005	13.411965	[{'label': 'display', 'lat': 52.52100527429267...	237	NaN	DE	NaN	Berlin	Berlin	Deutschland	[Alexanderplatz, Berlin]	NaN	4bf61d1194b2a593a203adee
4	Bonanza Coffee	Coffee Shop	Jägerstr. 58	52.514034	13.390665	[{'label': 'display', 'lat': 52.514034, 'lng':...	1425	10117	DE	NaN	Berlin	Berlin	Deutschland	[Jägerstr. 58, 10117 Berlin]	NaN	5eca85b8f2870e000801509b
5	Balzac Coffee	Coffee Shop	Karl-Liebknecht-Str. 5	52.519681	13.403687	[{'label': 'display', 'lat': 52.51968106379066...	349	10178	DE	NaN	Berlin	Berlin	Deutschland	[Karl-Liebknecht-Str. 5 (Spandauer Str.), 1017...	Spandauer Str.	4b0e18d0f964a520f05423e3
6	Coffee Room	Coffee Shop	Saarbrücker Str. 30	52.529816	13.415447	[{'label': 'display', 'lat': 52.52981574063849...	1104	10405	DE	NaN	Berlin	Berlin	Deutschland	[Saarbrücker Str. 30, 10405 Berlin]	NaN	534926fa11d2adce9850f45b
7	Bonanza Coffee	Coffee Shop	Oderberger Str. 35	52.539993	13.405530	[{'label': 'display', 'lat': 52.53999265350801...	2140	10435	DE	NaN	Berlin	Berlin	Deutschland	[Oderberger Str. 35, 10435 Berlin]	NaN	4af28ef8f964a520eae721e3
8	AMT Coffee	Coffee Shop	Hackescher Markt	52.523158	13.403127	[{'label': 'display', 'lat': 52.52315836250000...	444	10178	DE	NaN	Berlin	Berlin	Deutschland	[Hackescher Markt (S-Bahnbögen), 10178 Berlin]	S-Bahnbögen	4b11338ff964a520d57823e3
9	the coffee shop	Café	Werderscher Markt 1	52.515441	13.397738	[{'label': 'display', 'lat': 52.51544126096473...	944	10117	DE	NaN	Berlin	Berlin	Deutschland	[Werderscher Markt 1 (im Auswärtigen Amt), 101...	im Auswärtigen Amt	4e4a6397c65bab12516c3dd6
10	Coffee I	Café	Brückenstr. 5-6a	52.513210	13.417482	[{'label': 'display', 'lat': 52.51321017163587...	1046	10179	DE	NaN	Berlin	Berlin	Deutschland	[Brückenstr. 5-6a, 10179 Berlin]	NaN	4bc5a3edccbcef3b47b9e6d2
11	Philosoffee Pop-Up Coffee Bar	Coffee Shop	Rosenthaler Str. 66	52.528383	13.402483	[{'label': 'display', 'lat': 52.52838250543396...	931	10119	DE	NaN	Berlin	Berlin	Deutschland	[Rosenthaler Str. 66, 10119 Berlin]	NaN	5b6840e2cb3fd20039a5497d
12	Meyerbeer Coffee	Coffee Shop	Universitätsstr. 2/3a	52.520016	13.392046	[{'label': 'display', 'lat': 52.52001571120682...	1116	10117	DE	NaN	Berlin	Berlin	Deutschland	[Universitätsstr. 2/3a (Georgenstr.), 10117 Be...	Georgenstr.	4b1d2d5ef964a520950c24e3
13	Bonaverde Coffee AG	Café	Schröderstraße 11/2	52.529796	13.402503	[{'label': 'display', 'lat': 52.529796, 'lng':...	1075	10115	DE	Mitte	Berlin	Berlin	Deutschland	[Schröderstraße 11/2, 10115 Berlin]	NaN	53c81eb2498e04400a4abf29
14	BEN RAHIM	Coffee Shop	Sophienstr. 7	52.525168	13.401928	[{'label': 'display', 'lat': 52.52516811272114...	654	10178	DE	NaN	Berlin	Berlin	Deutschland	[Sophienstr. 7, 10178 Berlin]	NaN	5513bfb5498ea118a7b91102
15	Coffee Circle	Coffee Shop	Rosa-Luxemburg-Straße 19	52.525339	13.410462	[{'label': 'display', 'lat': 52.525339, 'lng':...	517	10178	DE	NaN	Berlin	Berlin	Deutschland	[Rosa-Luxemburg-Straße 19, 10178 Berlin]	NaN	607ad2d5cb0997113f28f11a

Analysis

◈ We will get the (lat-long) of the location from geocode and Nominatim

◈ o We will use our personal information (CLIENT_ID, CLIENT_SECRET, ACCESS_TOKEN, VERSION) from Foursquare

◈ o We will call the API from Foursquare and search for the information that we want (coffee shops)

◈ o We will get the data as a list

◈ o We will change it and display it in json format

◈ o We will clean and filter our data to habe better view

◈ o We will use Folium to visualize our data in Berlin map

◈ o We will mark the center of Berlin with red circle and the coffee shops with blue circle

◈ o We will take the id of any interested location and search for rating and tips

◈ o From foursquare we can git a list of the rating (in a case that someone rated this coffee shop)

◈ o We can show the rates and tips to read what the others wrote about this coffee shop

VISUALIZING THE DATA WITH FOLIUM

EXPLORING THE AREA FOR SELECTED COFFEE SHOP

Results and Discussion

◈ Our analysis shows that although there is a great number of coffee shops in Berlin . in all direction from the center (Alexander platz) you can find great areas with great coffee shops.

Conclusion

◈ Purpose of this project was to identify Berlin areas close to center with coffee shops. By finding and visualizing coffee shops from Foursquare data we have first identified general coffee shops that justify further analysis, and then we explored the area of selected coffee shops so we can continue our tour.