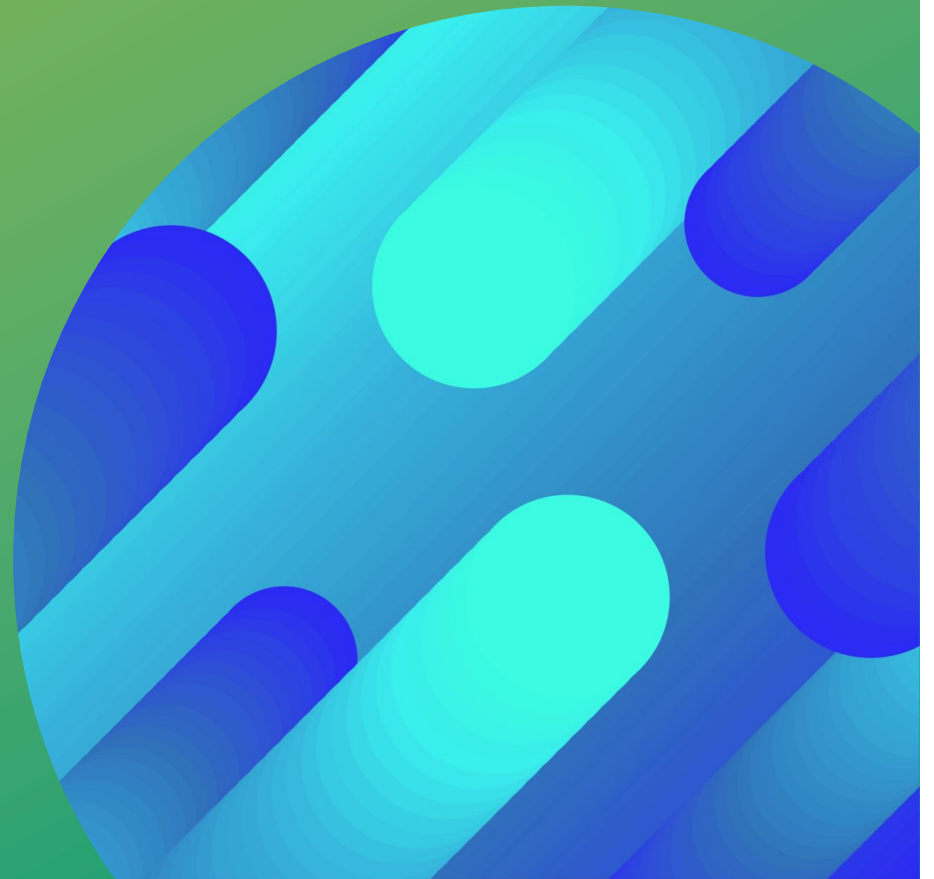


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CAPSTONE PROJECT - THE BATTLE OF NEIGHBORHOODS



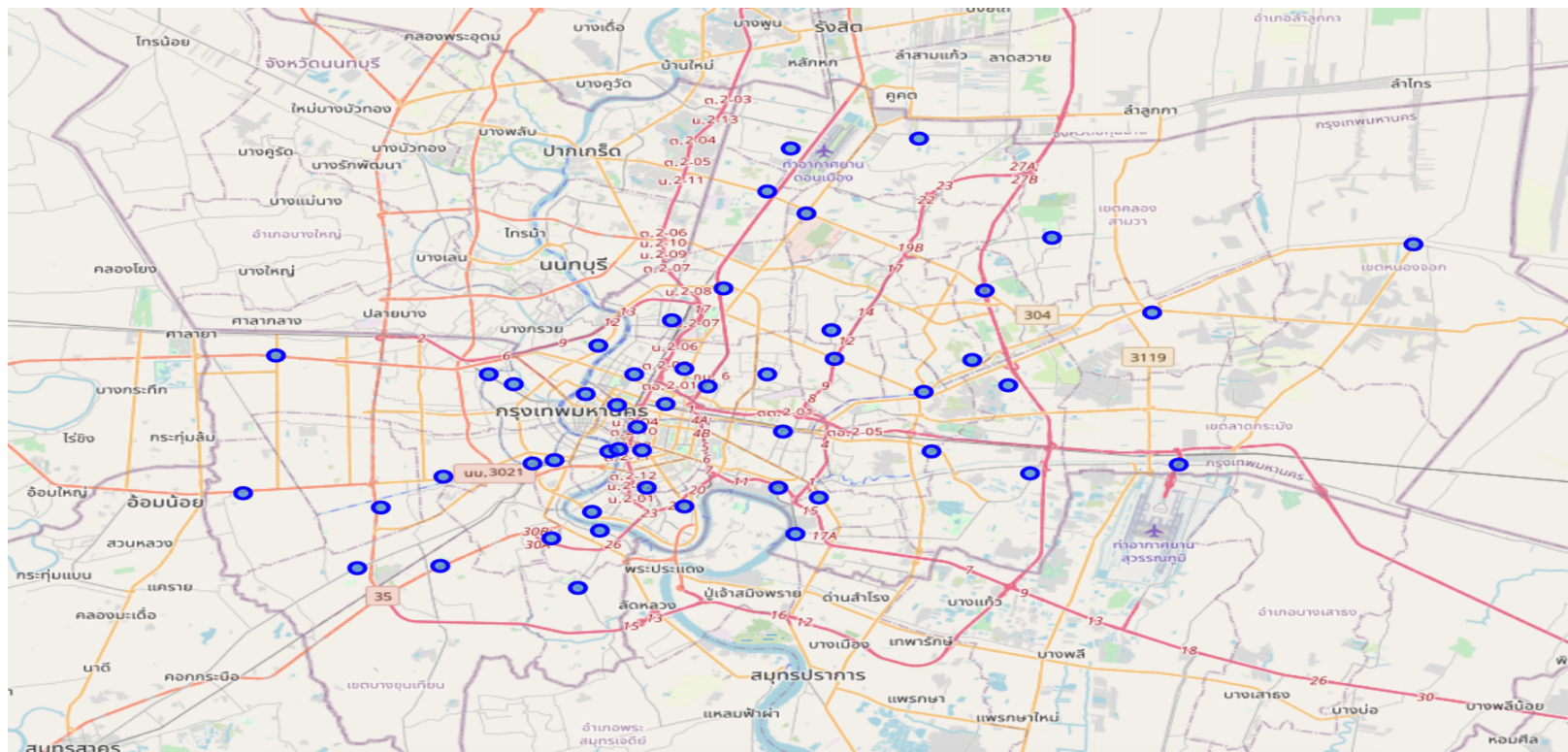
Raw Data

	District(Khet)	MapNr	Post-code	Thai	Popu-lation	No. ofSubdis-trictsKhwaeng	Latitude	Longitude
0	Bang Bon	50	10150	บางบอน	105161	4	13.659200	100.399100
1	Bang Kapi	6	10240	บางกะปิ	148465	2	13.765833	100.647778
2	Bang Khae	40	10160	บางแค	191781	4	13.696111	100.409444
3	Bang Khen	5	10220	บางเขน	189539	2	13.873889	100.596389
4	Bang Kho Laem	31	10120	บางคอแหลม	94956	3	13.693333	100.502500
5	Bang Khun Thian	21	10150	บางขุนเทียน	165491	2	13.660833	100.435833
6	Bang Na	47	10260	บางนา	95912	2	13.680081	100.591800
7	Bang Phlat	25	10700	บางพลัด	99273	4	13.793889	100.505000
8	Bang Rak	4	10500	บางรัก	45875	5	13.730833	100.524167
9	Bang Sue	29	10800	บางซื่อ	132234	2	13.809722	100.537222
10	Bangkok Noi	20	10700	บางกอกน้อย	117793	5	13.770867	100.467933
11	Bangkok Yai	16	10600	บางกอกใหญ่	72321	2	13.722778	100.476389
12	Bueng Kum	27	10240	บึงกุ่ม	145830	3	13.785278	100.669167
13	Chatuchak	30	10900	จตุจักร	160906	5	13.828611	100.559722
14	Chom Thong	35	10150	จอมทอง	158005	4	13.677222	100.484722
15	Din Daeng	26	10400	ดินแดง	130220	2	13.769722	100.552778
16	Don Mueang	36	10210	ดอนเมือง	166261	3	13.913611	100.589722
17	Dusit	2	10300	ดุสิต	107655	5	13.776944	100.520556
18	Huai Khwang	17	10310	ห้วยขวาง	78175	3	13.776667	100.579444
19	Khan Na Yao	43	10230	คันนายาว	88678	2	13.827100	100.674300
20	Khlong Sam Wa	46	10510	คลองสามวา	169489	5	13.859722	100.704167
21	Khlong San	18	10600	คลองสาน	76446	4	13.730278	100.509722
22	Khlong Toei	33	10110	คลองเตย	109041	3	13.708056	100.583889
23	Lak Si	41	10210	หลักสี่	109770	2	13.887500	100.578889

COVERTED TO DATA FRAME

	Name	Latitude	Longitude
0	Bang Bon	13.659200	100.399100
1	Bang Kapi	13.765833	100.647778
2	Bang Khae	13.696111	100.409444
3	Bang Khen	13.873889	100.596389
4	Bang Kho Laem	13.693333	100.502500
5	Bang Khun Thian	13.660833	100.435833
6	Bang Na	13.680081	100.591800
7	Bang Phlat	13.793889	100.505000
8	Bang Rak	13.730833	100.524167
9	Bang Sue	13.809722	100.537222
10	Bangkok Noi	13.770867	100.467933
11	Bangkok Yai	13.722778	100.476389
12	Bueng Kum	13.785278	100.669167
13	Chatuchak	13.828611	100.559722
14	Chom Thong	13.677222	100.484722
15	Din Daeng	13.769722	100.552778
16	Don Mueang	13.913611	100.589722
17	Dusit	13.776944	100.520556
18	Huai Khwang	13.776667	100.579444
19	Khan Na Yao	13.827100	100.674300
20	Khlong Sam Wa	13.859722	100.704167
21	Khlong San	13.730278	100.509722
22	Khlong Toei	13.708056	100.583889
23	Lak Si	13.887500	100.578889
24	Lat Krabang	13.722317	100.759669

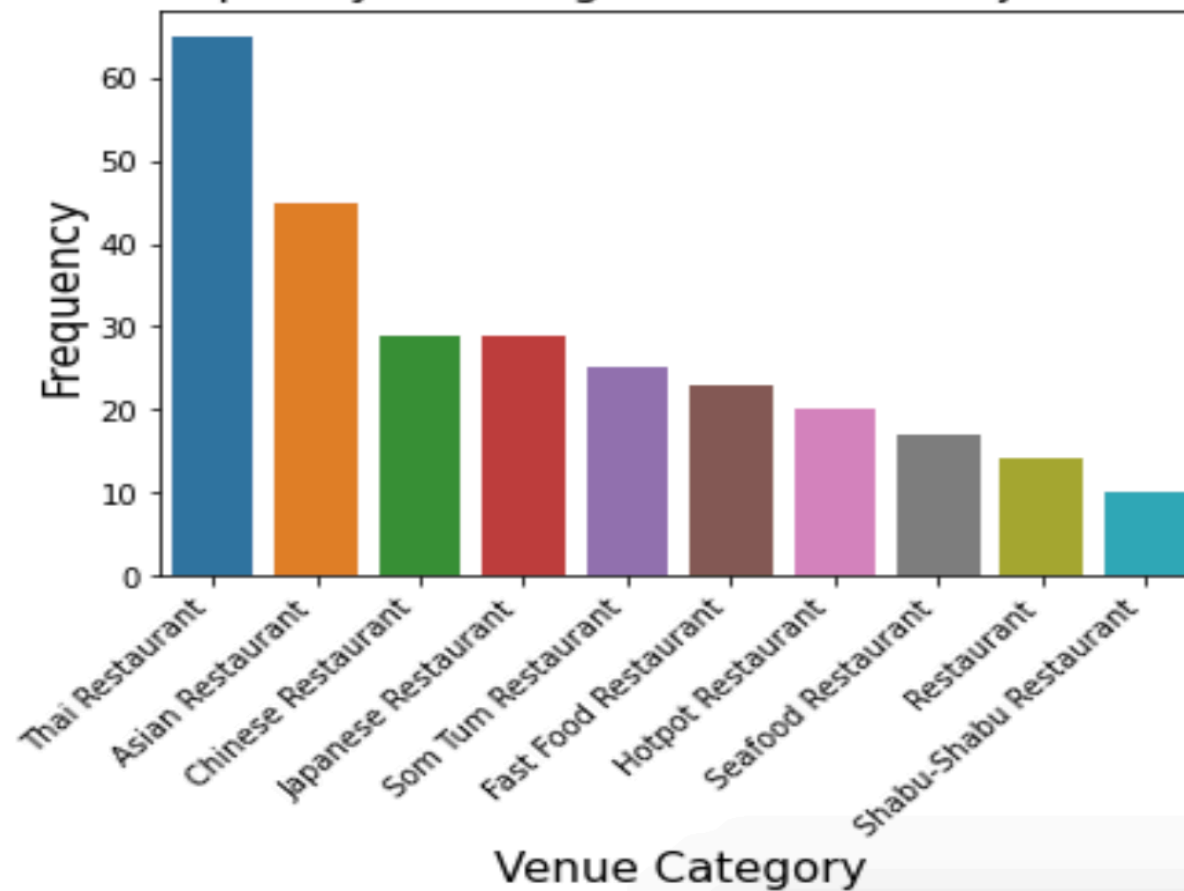
Bangkok district



	Venue Category	Count
0	Noodle House	376
1	Thai Restaurant	357
2	Coffee Shop	332
3	Convenience Store	259
4	Café	166
5	Hotel	131
6	Japanese Restaurant	125
7	Asian Restaurant	120
8	Chinese Restaurant	97
9	Som Tum Restaurant	96
10	Bar	88
11	Dessert Shop	87
12	Seafood Restaurant	79
13	Hotpot Restaurant	77
14	Ice Cream Shop	70
15	Fast Food Restaurant	66
16	Restaurant	66
17	Bakery	65
18	BBQ Joint	64
19	Shopping Mall	62

List of all the
categories of all the
restaurant

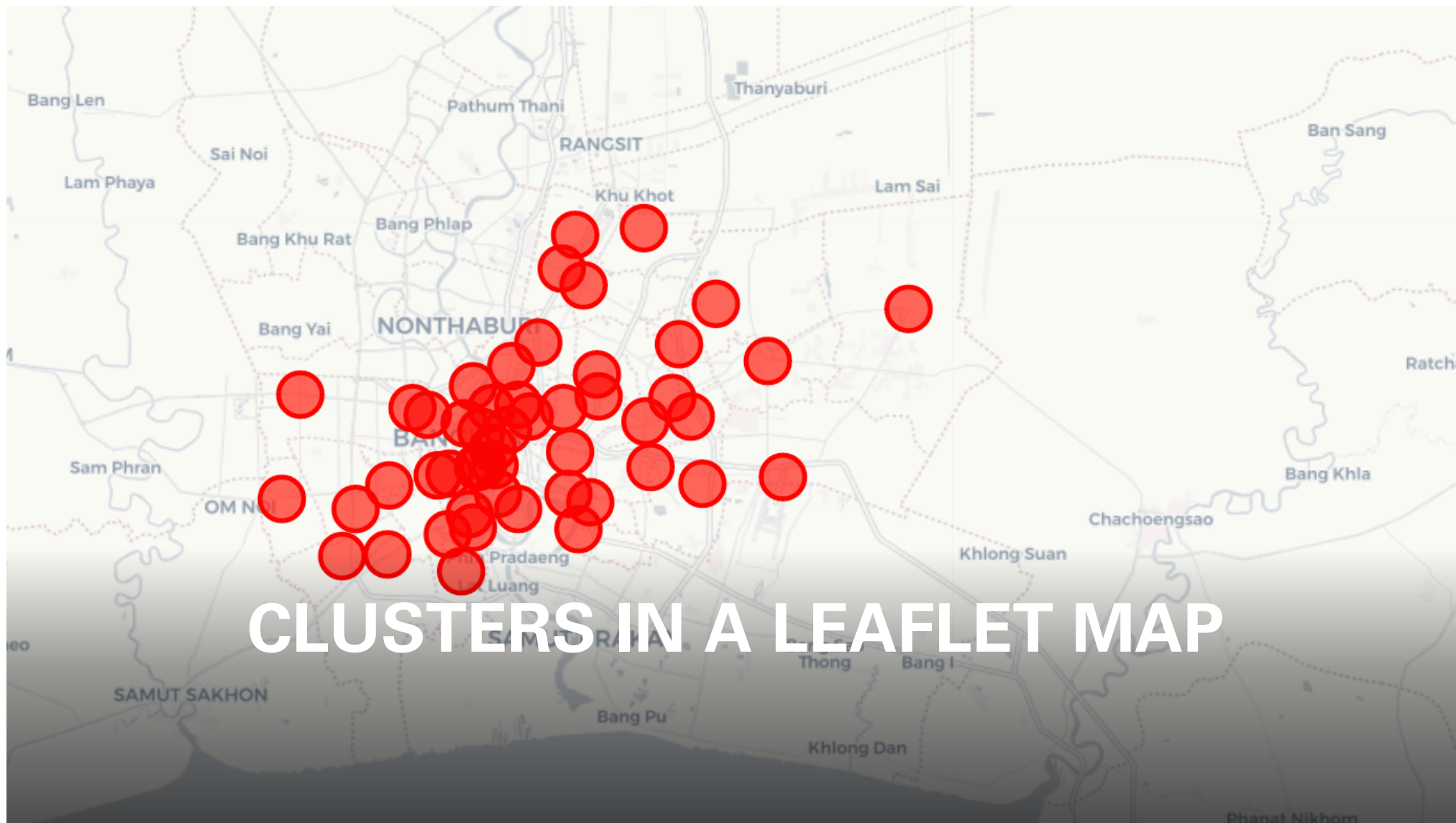
10 Most Frequently Occuring Venues in 50 Major Districts of bkk



OUTPUT EACH NEIGHBORHOOD ALONG WITH THE TOP 5 MOST COMMON VENUES

```
-- Khlong San --
      venue  freq
0    Thai Restaurant  0.4
1  Japanese Restaurant  0.1
2  Cantonese Restaurant  0.1
3   Chinese Restaurant  0.1
4   Dim Sum Restaurant  0.1

-- Khlong Toei --
      venue  freq
0    Thai Restaurant  1.0
1  American Restaurant  0.0
2    Korean Restaurant  0.0
3 Vegetarian / Vegan Restaurant  0.0
4      Udon Restaurant  0.0
```



Conclusion



In a fast-moving world, there are many real-life problems or scenarios where data can be used to find solutions to those problems. Like seen in the example above, data was used to cluster neighborhoods in Bangkok based on the most common food venues (Restaurants) in its 50 major districts. The results can help a traveler to decide about the district that fit the most his needs.



I have made use of some frequently used python libraries to scrap web-data, use Foursquare API to explore the major districts of Bangkok and saw the results of segmentation of districts using Folium leaflet map.



Similarly, data can also be used to solve other problems, which most people face in metropolitan cities. Potential for this kind of analysis in a real-life problem is discussed in great detail. Also, some of the drawbacks and chance for improvements to represent even more realistic pictures are mentioned.