CAPSTONE PROJECT

BATTLE OF NEIGHBORHOODS – NEW INDIAN RESTAURANT

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PROBLEM DESCRIPTION

Los Angeles is the most populous city in California and the second most populous city in Unites States, after New York, City. The population is close to 4 million. The city is known for its Mediterranean climate, ethnic diversity. With all the skill set that I have gained in this course, I would like to find a good location for my client to start an Indian Restaurant in Los Angeles City.

BACKGROUND

Los Angeles has wide range of ethnicities and people from all over the world come here for tourism. Finding a good place to fine dine is always a challenge in highly populous places. There are many Indian Restaurants, however my client would like to open a new branch in a neighborhood where the Asian population is more and where there are not many Asian Restaurants.

DATA SOURCES

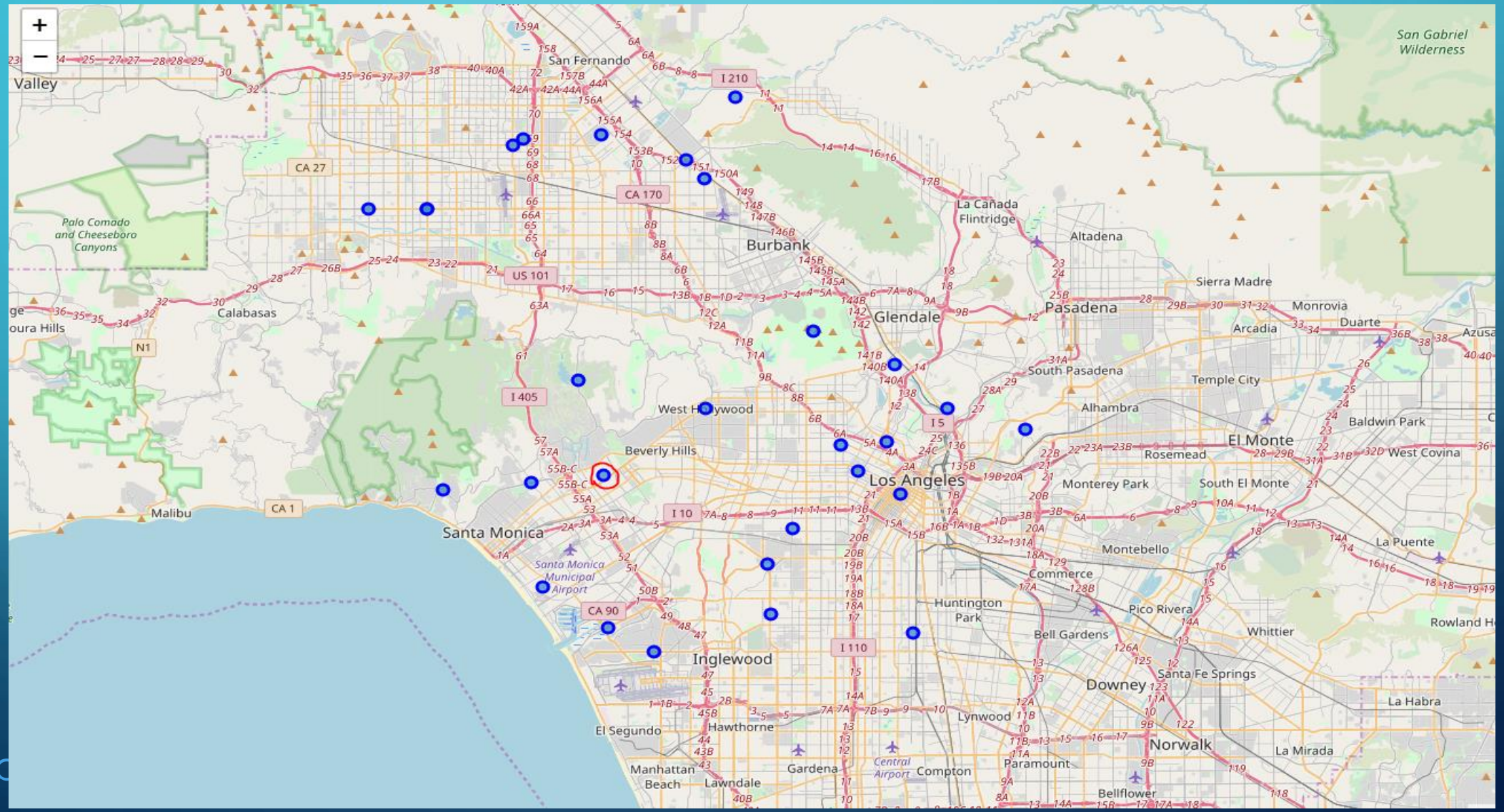
This project will rely on public data from Wikipedia, Foursquare and many other gov websites:

- https://ehservices.publichealth.lacounty.gov/ezsearch
- http://www.laalmanac.com/communications/cm02_communities.php
- https://www.rentcafe.com/average-rent-market-trends/us/ca/los-angeles/
- http://maps.latimes.com/neighborhoods/ethnicity/asian/neighborhood/list/
- http://www.laalmanac.com/population/po24la.php
- https://developer.foursquare.com

DATA SET:

	Neighborhood	City	State	ZipCode	Rent-2019-06	Resturant_Rating	Latitude	Longitude	RentScore	Resturant_Rating_Score	Asian_population%
0	Florence-Graham	Los Angeles	CA	90001	1295	92.00	33.970090	-118.244994	0.974859	0.938865	49.57
1	Virgil Village	Los Angeles	CA	90004	1458	95.18	34.072417	-118.288209	0.891226	0.244541	23.91
2	Harvard Heights	Los Angeles	CA	90006	1560	93.47	34.007702	-118.332063	0.838892	0.617904	9.65
3	Leimert Park	Los Angeles	CA	90008	1495	95.35	34.045720	-118.252421	0.872242	0.207424	3.23
4	Dowtown Fashion District	Los Angeles	CA	90013	2745	91.72	34.027234	-118.317576	0.230888	1.000000	4.63
5	Downtown Historic Core	Los Angeles	CA	90014	2500	95.48	34.056121	-118.430635	0.356593	0.179039	12.99
6	Jefferson Park	Los Angeles	CA	90018	1246	93.50	34.092301	-118.369289	1.000000	0.611354	2.77
7	Arlington Heights	Los Angeles	CA	90019	1543	94.00	34.074000	-118.260874	0.847614	0.502183	13.09
8	Westwood	Los Angeles	CA	90024	2530	94.76	34.134427	-118.305092	0.341201	0.336245	25.86
9	West Hollywood	Los Angeles	CA	90025	2400	93.34	34.081121	-118.177849	0.407901	0.646288	20.16
10	Echo Park	Los Angeles	CA	90026	1950	95.14	34.116398	-118.256464	0.638789	0.253275	20.86
11	Griffith Park	Los Angeles	CA	90027	2100	96.27	33.980569	-118.330631	0.561827	0.006550	0.00
12	El Sereno	Los Angeles	CA	90032	1391	92.63	33.959735	-118.400632	0.925603	0.801310	10.62
13	Atwater Village	Los Angeles	CA	90039	1800	96.30	34.052140	-118.474070	0.715752	0.000000	21.54
14	Hyde Park	Los Angeles	CA	90043	1541	93.94	34.058144	-118.277892	0.848640	0.515284	0.68
15	Westchester	Los Angeles	CA	90045	2100	95.16	34.092232	-118.224518	0.561827	0.248908	11.20
16	Brentwood	Los Angeles	CA	90049	2420	94.92	34.107785	-118.445636	0.397640	0.301310	8.56
17	Westlake	Los Angeles	CA	90057	1665	93.70	33.972790	-118.427578	0.785018	0.567686	16.54
18	Cypress Park	Los Angeles	CA	90065	1700	91.75	34.048064	-118.526471	0.767060	0.993450	10.15
19	Beverly Glen	Los Angeles	CA	90077	2560	93.56	33.995044	-118.466887	0.325808	0.598253	6.70
20	Playa Vista	Los Angeles	CA	90094	2100	95.33	34.261947	-118.351746	0.561827	0.211790	22.43
21	Pacific Palisades	Los Angeles	CA	90272	2690	96.10	34.201262	-118.571087	0.259107	0.043668	5.35
22	Venice	Los Angeles	CA	90291	3195	93.71	34.241327	-118.432205	0.000000	0.565502	5.67
23	Shadow Hills	Los Angeles	CA	91040	1517	93.90	34.201116	-118.536474	0.860954	0.524017	5.89
24	Winnetka	Los Angeles	CA	91306	1440	95.85	34.239054	-118.478622	0.900462	0.098253	17.01

CHOROPLETH MAP OF ALL NEIGHBORHOODS



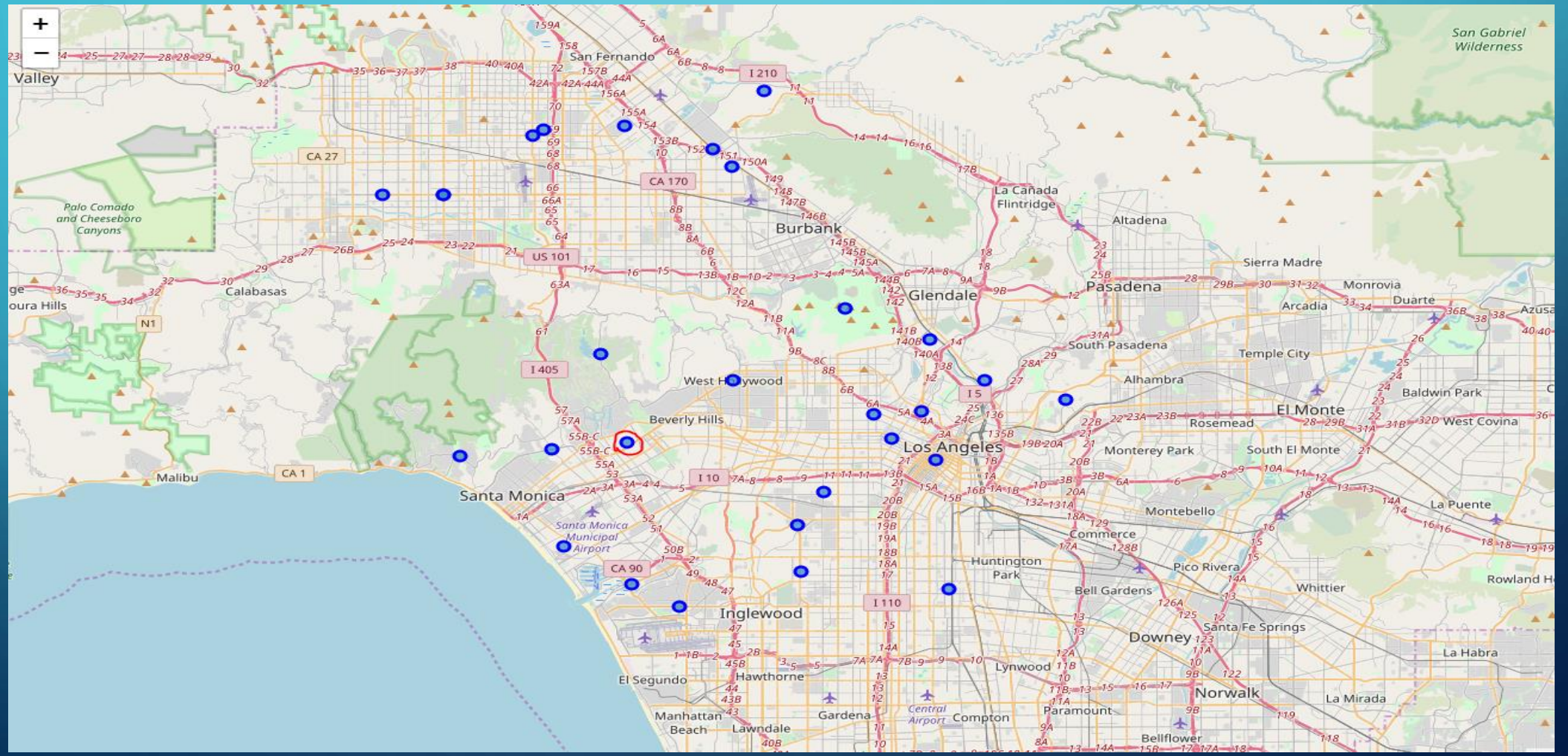
METHODOLOGY

- With the Asian population data set, identify the top 5 neighborhoods in LA that has the highest Asian population percentages.
- Using Foursquare, explore the single Neighborhood among the 5 neighborhoods. Florence-Graham is used for the analysis. Identify different view categories in Florence-Graham and apply the same logic to explore the remaining 4 neighborhoods.
- Also, find out the 10 most commonly viewed venues in each of the above 5 neighborhoods and using k-Mean clustering techniques, create clusters and review the results

RESULTS

- Cluster 1 with Westwood predominantly appears to be the best location to open the new Restaurant. Westwood seems to have park, scenic lookout as the most common venues and there is no Indian Restaurant, Westwood also has second highest Asian population and the property rental is low and there are no high rating restaurants in the area.
- Cluster 2: The Renting is very high for Florence-Graham. Virgil Village already has an Indian Restaurant.
- Cluster 3: Playa Vista already has an Indian Restaurant and it is already in most commonly visited venues.

FINAL RECOMMENDATION FOR INDIAN RESTAURANT - WESTWOOD



CONCLUSION

It is very important to note that Westwood, Los Angles CA is more viable to open a new Indian Restaurant. The place seems to be more centric for tourists as park and site seeing are most common viewed places and the rent is reasonably low in the neighborhood with no existing India Restaurants.

THANK YOU