Asian Taste in Taksim Square

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Why Istanbul and why Taksim area for an Asian Restaurant

Istanbul is a major city in Turkey that straddles Europe and Asia across the Bosphorus Strait. Its Old City reflects cultural influences of the many empires that once ruled here. In the Sultanahmet district, the open-air, Roman-era Hippodrome was for centuries the site of chariot races, and Egyptian obelisks also remain. The iconic Byzantine Hagia Sophia features a soaring 6th-century dome and rare Christian mosaics.

Business Objective

To open an Asian Restaurant in Istanbul especially in Taksim area where is highly touristic area. The Asian visitor is very high in this area.

Therefore I found out the district satellite coordination as follow. Then I use the K-means clustering algorithm to find the best location for an Asian restaurant.

```
In [864]: BEYData_data = pd.read_csv('c:\ANKData\BEYDataLongLat.csv', index_col = False)
          BEYData_data.head()
```

Out[864]:

	Latitude	Longitude	Neighbourhood
0	41.023692	28.970145	Azapkapi
1	41.025691	28.973050	Bereketzade
2	41.035189	28.957431	Camlikebir
3	41.037376	28.978036	Cukur
4	41.048710	28.956862	Fetihtepe

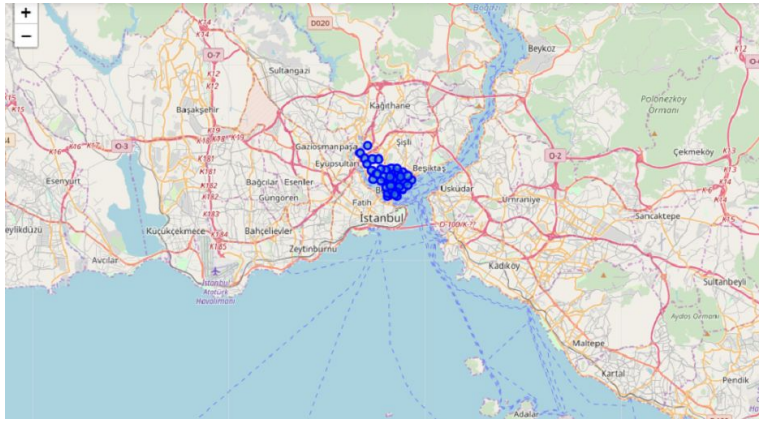
```
In [865]: BEYData_data.tail()
```

Out[865]:

	Latitude	Longitude	Neighbourhood
40	41.025093	28.976119	Mueyeedzade
41	41.045479	28.951384	Piripasa
42	41.037029	28.972407	Suriri Mehmet
43	41.036978	28.982155	Sehit Muhtar
44	41.042505	28.978184	Yenisehir

```
In [867]: BEYData_data.shape
```

Out[867]: (45, 3)

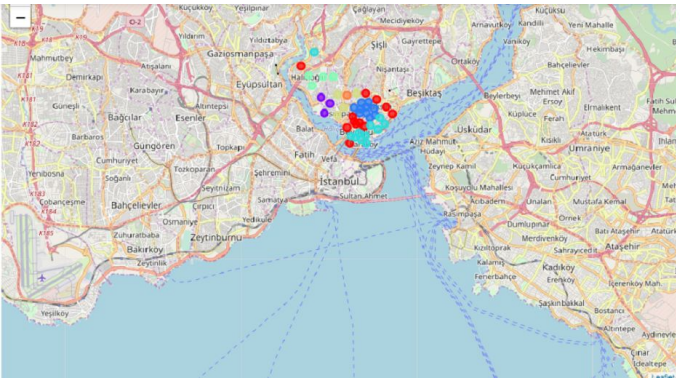


Heat Map of the venues

Neighbourhood	Neighbourhood Latitude	Neighbourhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
Asmali Mescit	100	100	100	100	100	100
Azapkapi	100	100	100	100	100	100
Bedrettin	82	82	82	82	82	82
Bereketzade	100	100	100	100	100	100
Bostan	75	75	75	75	75	75
Bulbul	100	100	100	100	100	100
Camlikebir	12	12	12	12	12	12
Catma	100	100	100	100	100	100
Cihangir	100	100	100	100	100	100
Cukur	100	100	100	100	100	100
Emekyemez	100	100	100	100	100	100
Evliya	100	100	100	100	100	100
Fetihtepe	24	24	24	24	24	24
Firuzaga	100	100	100	100	100	100
Gumussuyu	100	100	100	100	100	100
Haciahmet	41	41	41	41	41	41
Hacimimi	100	100	100	100	100	100
Halicioglu	31	31	31	31	31	31
Huseyinaga	100	100	100	100	100	100
Istiklal	17	17	17	17	17	17
Kadi Mehmet	72	72	72	72	72	72
Kalyoncu	100	100	100	100	100	100
Kamer Hatun	100	100	100	100	100	100
Kaptanpasa	31	31	31	31	31	31
Katip Mustafa	100	100	100	100	100	100
Kececi	36	36	36	36	36	36

Clustering of venues

Using the K-means algorithm with the k value of 7, we can see the partitioning of the venues of the map below.




```
In [857]: BEYData_merged.loc[BEYData_merged['Cluster Labels'] == 0, BEYData_merged.columns[[2] + list(range(4, BEYData_merged.shape[1]))]]
Out[857]:
```

	Neighbourhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	Azapkapi	Hotel	Restaurant	Café	Coffee Shop	Turkish Restaurant	Seafood Restaurant	Art Gallery	Plaza	Historic Site	Lounge
11	Omeravni	Hotel	Café	Restaurant	Pizza Place	Scenic Lookout	Tea Room	Coffee Shop	Yoga Studio	Mediterranean Restaurant	Mosque
13	Sutluce	Café	Turkish Restaurant	Hotel	Restaurant	Steakhouse	Soccer Field	Food Truck	Bakery	Mediterranean Restaurant	Bistro
14	Tomtom	Restaurant	Café	Art Gallery	Hotel	Bar	Coffee Shop	Art Museum	Theater	Dance Studio	Clothing Store
15	Asmali Mescit	Hotel	Restaurant	Café	Art Gallery	Bar	Italian Restaurant	Dance Studio	Coffee Shop	Meyhane	Art Museum
24	Kocatepe	Hotel	Café	Bar	Art Gallery	Restaurant	Kebab Restaurant	Hostel	Nightclub	Spa	Turkish Home Cooking Restaurant
29	Yahya Kahya	Hotel	Café	Restaurant	Turkish Restaurant	Nightclub	Bar	Art Gallery	Italian Restaurant	Meyhane	Dance Studio
30	Bedrettin	Café	Hotel	Cocktail Bar	Restaurant	Turkish Restaurant	Music Venue	Coffee Shop	Bar	Italian Restaurant	Meyhane
32	Catma	Hotel	Café	Restaurant	Art Gallery	Coffee Shop	Cocktail Bar	Meyhane	Nightclub	Italian Restaurant	Art Museum
33	Evliya	Café	Hotel	Restaurant	Cocktail Bar	Coffee Shop	Art Gallery	Turkish Restaurant	Nightclub	Bar	Meyhane
34	Gumussuyu	Hotel	Restaurant	Café	Coffee Shop	Hotel Bar	Mediterranean Restaurant	Art Gallery	Nightclub	Pizza Place	Bar
44	Yeniselhir	Hotel	Art Gallery	Turkish Restaurant	Spa	Art Museum	Lounge	Dessert Shop	Pool Hall	Recreation Center	Bistro

Summary

After running the K-means algorithm by partitioning 7, we out that the best location of an asian restaurant is in Cluster 0. The District names are listed as above.