

Good spot for Levantine cuisine restaurant in Paris

The city of Paris is divided into twenty arrondissements municipaux, administrative districts, more simply referred to as arrondissements.

We can get the detail of JSON file for those Arrondissements from the following link:

<https://opendata.paris.fr/explore/dataset/arrondissements/table/>



We first download the data, clean it and make sure that the dataset has all 20 Arrondissements of Paris.

```
[9]: print(neighborhoods)
```

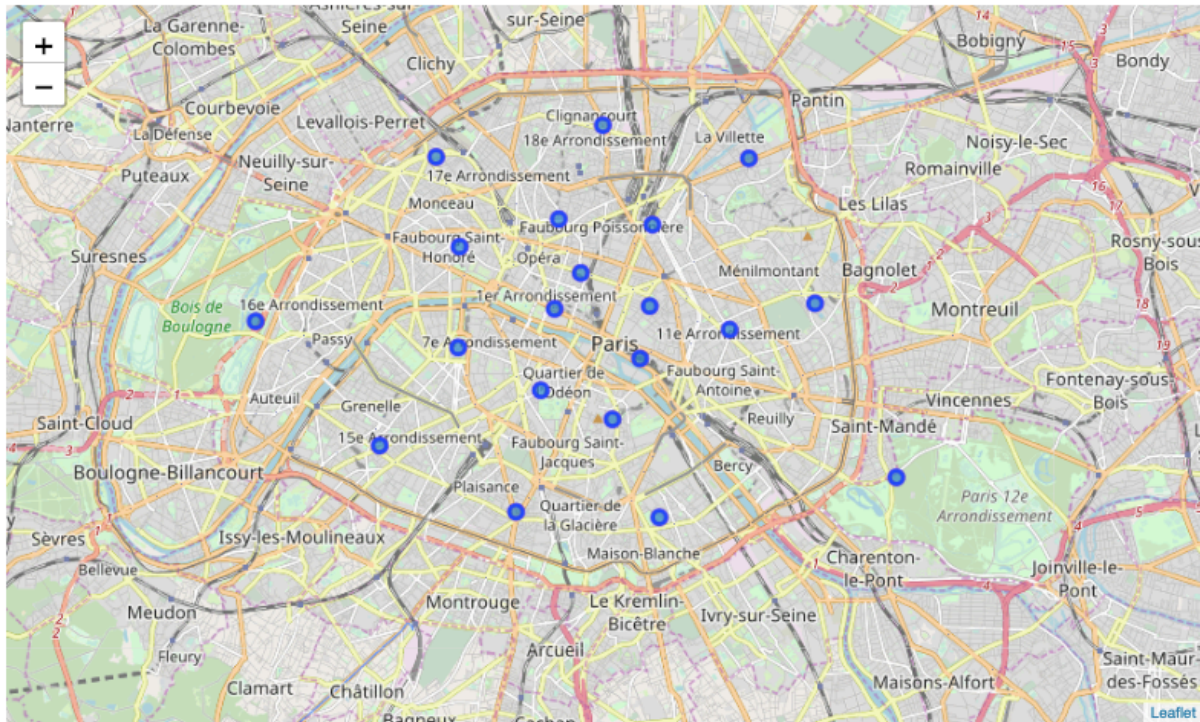
	Ar_number	Ar_name	Neighborhood	Latitude	Longitude
0	2	2ème Ardt	Bourse	48.868279	2.342803
1	3	3ème Ardt	Temple	48.862872	2.360001
2	12	12ème Ardt	Reuilly	48.834974	2.421325
3	1	1er Ardt	Louvre	48.862563	2.336443
4	4	4ème Ardt	Hôtel-de-Ville	48.854341	2.357630
5	8	8ème Ardt	Élysée	48.872721	2.312554
6	14	14ème Ardt	Observatoire	48.829245	2.326542
7	19	19ème Ardt	Buttes-Chaumont	48.887076	2.384821
8	20	20ème Ardt	Ménilmontant	48.863461	2.401188
9	6	6ème Ardt	Luxembourg	48.849130	2.332898
10	9	9ème Ardt	Opéra	48.877164	2.337458
11	17	17ème Ardt	Batignolles-Monceau	48.887327	2.306777
12	15	15ème Ardt	Vaugirard	48.840085	2.292826
13	5	5ème Ardt	Panthéon	48.844443	2.350715
14	7	7ème Ardt	Palais-Bourbon	48.856174	2.312188
15	10	10ème Ardt	Entrepôt	48.876130	2.360728
16	11	11ème Ardt	Popincourt	48.859059	2.380058
17	13	13ème Ardt	Gobelins	48.828388	2.362272
18	16	16ème Ardt	Passy	48.860392	2.261971
19	18	18ème Ardt	Buttes-Montmartre	48.892569	2.348161

And make sure that the dataset has all 20 Arrondissements of Paris

```
[10]: print('The dataframe has {} Arrondissements.'.format(
        len(neighborhoods['Ar_name'].unique()),
        neighborhoods.shape[0]
    ))
```

The dataframe has 20 Arrondissements.

Let's then show the 20 Arrondissements of Paris on the MAP.



We start to explore all the Neighborhoods of Paris to get up to 100 Venues per Arrondissement.

Checking the number of venues returned by Foursquare, we got up to 1,405 Venues in Paris' 20 Arrondissements.

```
[24]: print(paris_venues.shape)
      paris_venues.head(120)
```

(1405, 7)

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Bourse	48.868279	2.342803	Pizzeria Popolare	48.868252	2.343398	Pizza Place
1	Bourse	48.868279	2.342803	Le Silencio	48.868998	2.343417	Nightclub
2	Bourse	48.868279	2.342803	Le Moderne	48.868856	2.342142	French Restaurant
3	Bourse	48.868279	2.342803	L'Appartement Sézane	48.869574	2.345060	Women's Store
4	Bourse	48.868279	2.342803	Saturne	48.868394	2.341825	French Restaurant
5	Bourse	48.868279	2.342803	Galerie Vivienne	48.866731	2.339800	Historic Site
6	Bourse	48.868279	2.342803	Danico	48.867071	2.339414	Cocktail Bar
7	Bourse	48.868279	2.342803	Le Nom M'échappe	48.868125	2.341673	Bistro
8	Bourse	48.868279	2.342803	Mori Venice Bar	48.868940	2.340068	Italian Restaurant
9	Bourse	48.868279	2.342803	Karaage-Ya Bourse	48.870150	2.341826	Japanese Restaurant
10	Bourse	48.868279	2.342803	Chez Georges	48.866373	2.341311	French Restaurant
11	Bourse	48.868279	2.342803	FCINQ	48.868473	2.341914	Office
12	Bourse	48.868279	2.342803	Coinstot Vino	48.870646	2.341688	Wine Bar
13	Bourse	48.868279	2.342803	Les Athlètes	48.869516	2.339537	French Restaurant

Then we group the returned venues to show the number of restaurants per Arrondissement.

```
[25]: paris_venues.groupby('Neighborhood').count()
```

```
[25]:
```

	Neighborhood	Latitude	Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
	Neighborhood						
	Batignolles-Monceau	52	52	52	52	52	52
	Bourse	100	100	100	100	100	100
	Buttes-Chaumont	45	45	45	45	45	45
	Buttes-Montmartre	54	54	54	54	54	54
	Entrepôt	100	100	100	100	100	100
	Gobelins	60	60	60	60	60	60
	Hôtel-de-Ville	100	100	100	100	100	100
	Louvre	100	100	100	100	100	100
	Luxembourg	100	100	100	100	100	100
	Ménilmontant	51	51	51	51	51	51
	Observatoire	29	29	29	29	29	29
	Opéra	100	100	100	100	100	100
	Palais-Bourbon	100	100	100	100	100	100
	Panthéon	99	99	99	99	99	99
	Passy	9	9	9	9	9	9
	Popincourt	61	61	61	61	61	61
	Reuilly	4	4	4	4	4	4
	Temple	100	100	100	100	100	100
	Vaugirard	62	62	62	62	62	62
	Élysée	79	79	79	79	79	79

Another view of the Venues categories, shows we have 204 unique venue category.

Let's find out how many unique categories can be curated from all the returned venues

```
print('There are {} uniques category of venues.'.format(len(paris_venues['Venue Category'].unique())))
```

There are 204 uniques category of venues.

So we need to show all the Levantine cuisine restaurants that might be serving the same type of food as our new restaurant.

From the list of categories, the following restaurants would fall under this category:

- Lebanese Restaurant
- Turkish Restaurant
- Israeli Restaurant
- Kebab Restaurant
- Falafel Restaurant

In order to list Levantine cuisines, we need to filter the following restaurants returned by foursquare:

Lebanese, Turkish, Israeli, Kebab & Falafel

```
paris_venues_leb=paris_venues[paris_venues['Venue Category']=='Lebanese Restaurant']
Levant_food = ['Lebanese Restaurant', 'Turkish Restaurant', 'Israeli Restaurant', 'Kebab Restaurant', 'Falafel']

paris_venues_levant = paris_venues[paris_venues['Venue Category'].isin(Levant_food)]
paris_venues_levant.shape
```

(16, 7)

The result are 16 restaurants in Paris with the same type of cuisine. Let's show them on the map to see how they are scattered and explorer which Arrondissements/Quartiers are the furthest from any of these restaurants.

