

Hotels, Venues and Events in Paris

A series of horizontal lines in teal and light blue colors, with varying lengths and thicknesses, extending from the left edge of the slide towards the right, positioned below the main title.

Hotels, Venues and Events in Paris

- Paris is a very interesting city
- Population of over 2 million
- Lots of things to do
- Anyone with interests of visiting Paris will like to know:
 - 1. Is it possible to classify hotels according to the venues available and current events held in Paris?
 - 2. What will be the best borough in terms of proximity to venues and events in Paris?

Data

- Boroughs
- <https://opendata.paris.fr>

	Borough Id	Short name	Long name	Latitude	Longitude
0	1	1er Ardt	Louvre	48.862563	2.336443
1	2	2ème Ardt	Bourse	48.868279	2.342803
2	3	3ème Ardt	Temple	48.862872	2.360001
3	4	4ème Ardt	Hôtel-de-Ville	48.854341	2.357630
4	5	5ème Ardt	Panthéon	48.844443	2.350715

Data

- Hotels (758 hotels)
- <http://tourpedia.org/api/getPlaces?category=accommodation&location=Paris&name=>

	id	name	category	end_date	access	address	lat	lon	zipcode
0	82415	Visite guidée : Montmartre au cinéma	Animations -> Visite guidée	2019-08-17T15:00:00+00:00	libre	151B, rue Marcadet	48.891247	2.338471	75018
1	82407	Les différentes sources de financement de votr...	Animations -> Atelier / Cours	2019-09-18T19:30:00+00:00	reservation	54 rue Jean-Baptiste Pigalle	48.881041	2.336020	75009
2	82395	La Bibliothèque Edmond Rostand au square !	Animations -> Loisirs / Jeux	2019-08-08T10:30:00+00:00	libre	29 boulevard de Reims	48.890589	2.299701	75017
3	82389	Fête des jardins : bibliothèque à la Butte-du-...	Événements -> Fête / Parade	2019-09-14T15:00:00+00:00	libre	5, avenue Debidour	48.881898	2.398832	75019
4	82385	Concours de confitures d'été, 2ème édition	Animations -> Loisirs / Jeux	2019-09-07T15:30:00+00:00	libre	132 rue de la Glacière	48.827294	2.342083	75013

Data

- Events
- <https://opendata.paris.fr>

	id	name	category	end_date	access	address	lat	lon	zipcode
0	82415	Visite guidée : Montmartre au cinéma	Animations -> Visite guidée	2019-08-17T15:00:00+00:00	libre	151B, rue Marcadet	48.891247	2.338471	75018
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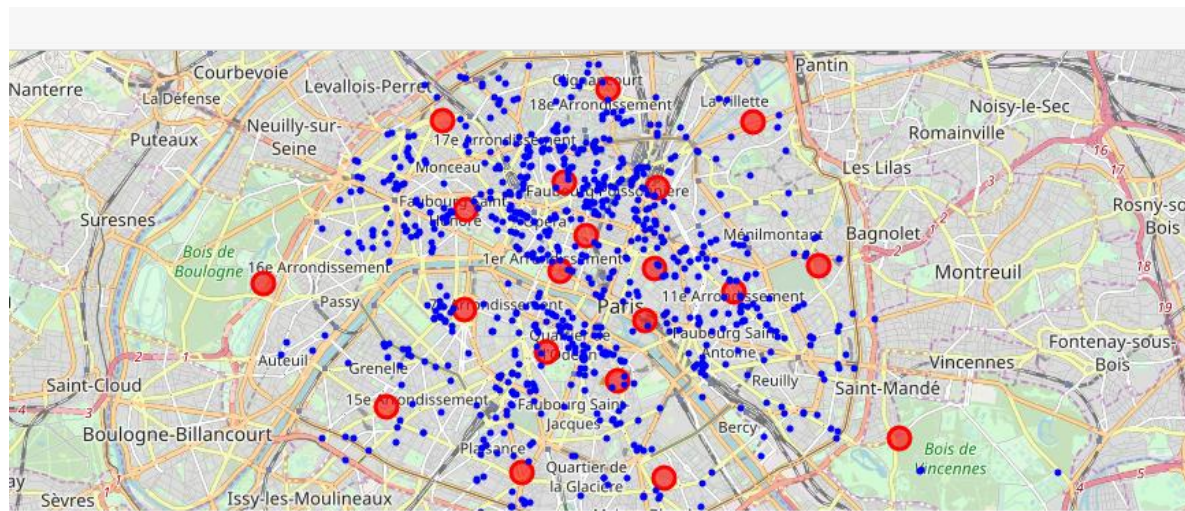
Data

- Venues:
- Foursquare API

	Hotel	Hotel Latitude	Hotel Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Pages d'histoire Librairie Clio	48.843165	2.329972	Amorino	48.844723	2.332110	Ice Cream Shop
1	Pages d'histoire Librairie Clio	48.843165	2.329972	Le Relais de l'Entrecôte	48.842525	2.328737	Steakhouse
2	Pages d'histoire Librairie Clio	48.843165	2.329972	Le Timbre	48.844240	2.329868	French Restaurant
3	Pages d'histoire Librairie Clio	48.843165	2.329972	Le Six Hotel	48.843793	2.328207	Hotel
4	Pages d'histoire Librairie Clio	48.843165	2.329972	Le Bistrot des Campagnes	48.840981	2.330782	French Restaurant
5	Pages d'histoire Librairie Clio	48.843165	2.329972	La Rotonde	48.842403	2.329193	French Restaurant
6	Pages d'histoire Librairie Clio	48.843165	2.329972	Le Bistrot du Dôme	48.842079	2.329204	Seafood Restaurant
7	Pages d'histoire Librairie Clio	48.843165	2.329972	My Noodles	48.841457	2.331435	Noodle House
8	Pages d'histoire Librairie Clio	48.843165	2.329972	Toritcho	48.842578	2.326067	Japanese Restaurant
9	Pages d'histoire Librairie Clio	48.843165	2.329972	Rosebud	48.841735	2.328106	Cocktail Bar
10	Pages d'histoire Librairie Clio	48.843165	2.329972	Théâtre Lucernaire	48.844201	2.330273	Theater

Mapping

- Once the information was obtained and cleansed, I prepared a map with boroughs and hotels (which will be the base for venues and events analyzed)



Methodology

- After one-hot-coding events and venues, the top 10 events / venues were obtained

	Borough Name	1st Most Common Event	2nd Most Common Event	3rd Most Common Event	4th Most Common Event	5th Most Common Event								
0	75001	Concerts -> Jazz	Animations -> Atelier / Cours	Animations -> Conférence / Débat	Animations -> Loisirs / Jeux	Animations -> Visite guidée								
1	75002	Animations -> Atelier / Cours	Animations -> Visite guidée	Animations -> Conférence / Débat	Spectacles -> Autre spectacle	Expositions -> Histoire / Civilisations								
2	75003	Animations -> Conférence / Débat	Animations -> Atelier / Cours	Spectacles -> Jeune public	Expositions -> Photographie		Borough Name	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue		
3	75004	Spectacles -> Projection	Animations -> Lecture / Rencontre	Spectacles -> Théâtre	Animations -> Conférence / Débat		0	75001	French Restaurant	Café	Japanese Restaurant	Plaza	Italian Restaurant	
4	75005	Animations -> Atelier / Cours	Animations -> Conférence / Débat	Spectacles -> Théâtre	Animations -> Visite guidée		Lex 1	75002	French Restaurant	Cocktail Bar	Japanese Restaurant	Bakery	Italian Restaurant	
								2	75003	French Restaurant	Coffee Shop	Art Gallery	Café	Bakery
								3	75004	French Restaurant	Ice Cream Shop	Italian Restaurant	Plaza	Cocktail Bar
								4	75005	French Restaurant	Bar	Bakery	Café	Plaza

Methodology

- This helped create clusters:

Venues

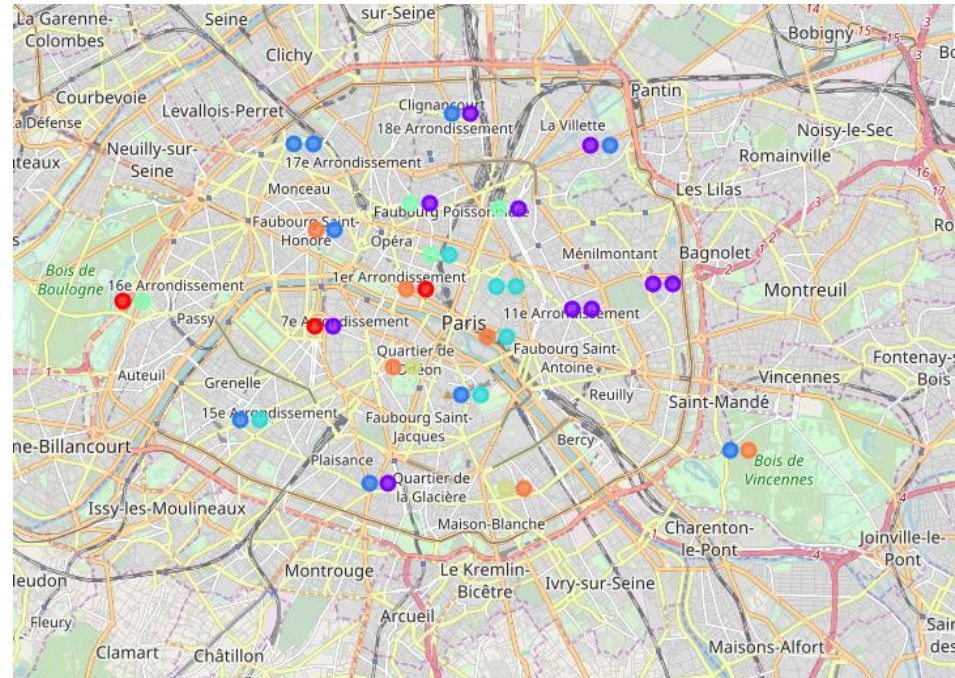
	Short name	Cluster Labels
15	16ème Ardt	0
6	7ème Ardt	0
19	20ème Ardt	1
18	19ème Ardt	1
10	11ème Ardt	1
17	18ème Ardt	2
16	17ème Ardt	2
4	5ème Ardt	2
14	15ème Ardt	2
13	14ème Ardt	2
11	12ème Ardt	2
2	3ème Ardt	3
9	10ème Ardt	4
8	9ème Ardt	4
1	2ème Ardt	4
12	13ème Ardt	5
7	8ème Ardt	6
5	6ème Ardt	6
3	4ème Ardt	6
0	1er Ardt	6

Events

	Short name	Cluster Labels
0	1er Ardt	0
17	18ème Ardt	1
13	14ème Ardt	1
10	11ème Ardt	1
8	9ème Ardt	1
6	7ème Ardt	1
9	10ème Ardt	1
19	20ème Ardt	1
7	8ème Ardt	2
18	19ème Ardt	2
16	17ème Ardt	2
4	5ème Ardt	3
3	4ème Ardt	3
2	3ème Ardt	3
14	15ème Ardt	3
1	2ème Ardt	3
15	16ème Ardt	4
5	6ème Ardt	5
11	12ème Ardt	6
12	13ème Ardt	6

Mapping Cluster Classification

- For each borough:
 - Left marker: Venues
 - Right marker: Events



Analysis

- Most common activities are concerts, animations (workshops and courses), shows and expositions.
- The venues are differenced by the type of restaurants included on each cluster. All of the boroughs include French restaurants, bars, pizza places, Italian restaurants and bistros. One will have to study on a major depth each borough to see its specific venues. For example, Boroughs 14 and 18 include a Bakery, Vietnamese restaurant, and a Plaza; Boroughs 11 and 20 have more bars and French restaurants but also include theaters and metro stations; Boroughs 9 and 10 have coffee shops.

Conclusions

- To determine which is the best borough is really up to a tourist's point of view, however this work can give the basic to anyone interested in visiting Paris and finding boroughs with common venues and events.
- Paris offers a broad range of venues and events, so picking a hotel based on the surrounding can be very useful.
- This kind of study can be updated every now and then since data from the events open data set is updated daily.
- Further studies can be made to analyze venues, events and hotels based on the prices and see if there is a relation to find hotels near to free / cheap / expensive events or venues.