

Yoga studio in Paris

# Business problem

- Where to open a new yoga studio in Paris?
  - To find an attractive place with lot of potential clients
  - To avoid excess competition

# Data

- We will use Foursquare API Paris data to find venues
- We will find the locations of Quartiers level
  - There are 80 quartiers in Paris,  
[https://en.wikipedia.org/wiki/Quarters\\_of\\_Paris](https://en.wikipedia.org/wiki/Quarters_of_Paris)
- We will use Geolocator to retrieve the geographical coordinates of the venues

# Methodology

- Our approach is to find quarters that are similar in properties – in our case, trending venues – than the quarters with the most yoga studios in them
- We search the 10 most trending venues at the radius of 500 m from the reference coordinates of each of the the quarters
- We divide the quarters into 5 clusters based on their 10 most trending Foursquare venues. We use k-means clustering.
- We make our suggestion based on the similarity of trending venues with those locations of most yoga studios in them
- In order to avoid competition, we suggest quarters that do not yet have yoga studios, or do have very few of those



# Results: Yoga studios in Paris

- Based on the Foursquare venues, there are four yoga studios in Paris. They are located in quartiers Notre-Dame, Sorbonne, Folie-Méricourt and Saint-Ambroise.
- We found that the quartiers where the yoga studios are located, belong to clusters 0 (Notre-Dame), 2 (Sorbonne) and 3 (Folie-Méricourt and Saint-Ambroise). 2 out of 4 yoga studios are located in cluster 3.

Quartier	Venue	Venue Category
['Notre-Dame']	Rasa Yoga	Yoga Studio
['Sorbonne']	Rasa Yoga	Yoga Studio
['Folie-Méricourt']	Ashtanga Yoga Paris	Yoga Studio
['Saint-Ambroise']	Ashtanga Yoga Paris	Yoga Studio

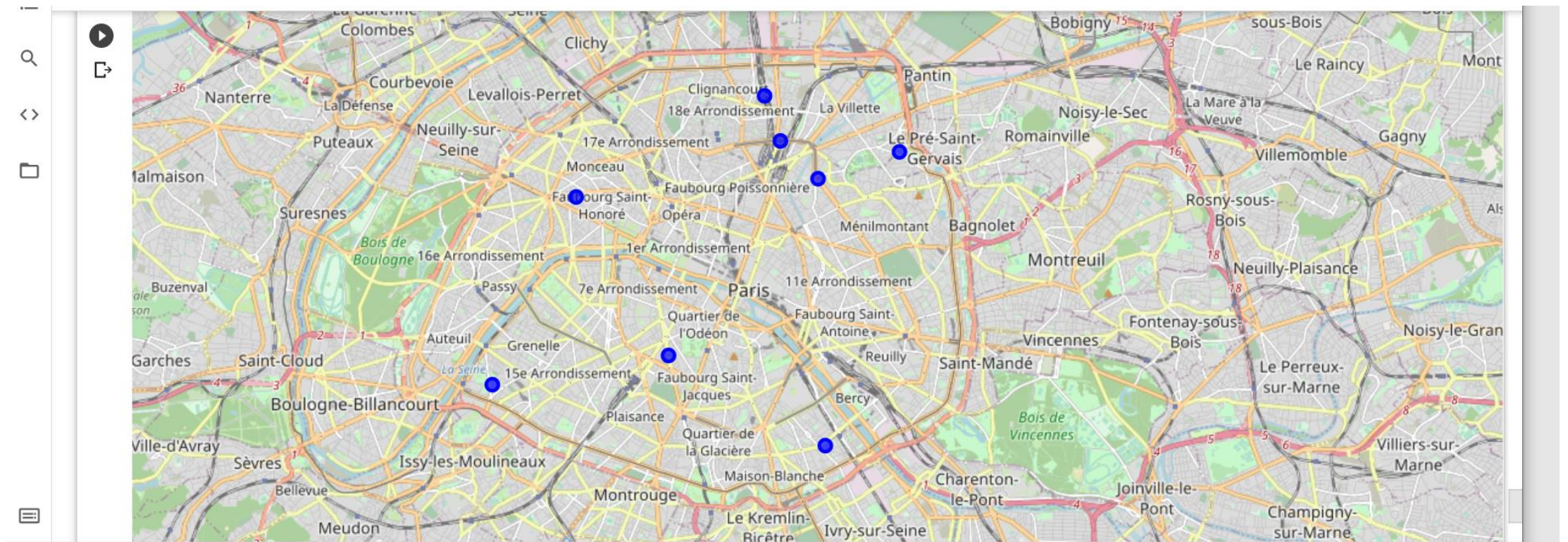
# Discussion and recommendations

As there are only four yoga studios in total, our analysis does not have the best possible accuracy. However, as 2 out of 4 yoga studios are located in cluster 3, we recommend taking a closer look on cluster 3 quartiers, especially those that don't have a yoga studio yet. The potential locations are listed below. Both the Folie-Méricourt and Saint-Ambroise that already have yoga studios, are located in the 11<sup>th</sup> district, and they have been removed from the recommendation list.

Quartier	Arrondissement
Notre-Dame-des-Champs	6e arrondissementdit « du Luxembourg »
Faubourg-du-Roule	8e arrondissementdit « de l'Élysée »
Gare	13e arrondissementdit « des Gobelins »
Javel	15e arrondissementdit « de Vaugirard »
Goutte-d'Or	18e arrondissementdit « des Buttes-Montmartre »
Chapelle	18e arrondissementdit « des Buttes-Montmartre »
Amérique	19e arrondissementdit « des Buttes-Chaumont »
Combat	19e arrondissementdit « des Buttes-Chaumont »



# Recommended quarters in a map





# Conclusions

- Based on clustering the Parisian quartiers by their 10 most common venues and finding the cluster where half of the Parisian yoga studios are located, we came up with the following list of quartiers, where there are no yoga studios yet, to look for a suitable space for a new yoga studio. It is to be noted that according to the dataset used, the number of yoga studios in Paris is small and the analysis therefore not very accurate. There may be potential locations elsewhere in the city, too.

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