# COURSERA CAPSTONE – THE BATTLES OF NEIGHBORHOODS

Recommendation for the set of touris office place

### Introduction

"where are the good places to open these tourist service office?"

The requirement of the office area should be:

- There are many foreign individual tourists around (they could live, have food, drink near there)
- The distance between the office should be optimal to gather as much as the customer all the office can.

## Data

#### The top 10 best hotel with latitude and longitude data frame

	hotel	Latitude	Longitude
0	Hanoi La Siesta Hotel & Spa	21.034234	105.853225
1	O'Gallery Premier Hotel & Spa	21.029668	105.845626
2	Golden Sun Suites Hotel	21.032632	105.849347
3	Khách sạn Hà Nội La Siesta Diamond	21.031594	105.854946
4	Serene Boutique Hotel & Spa	21.035007	105.847460

## Data

The 1468 travel places around the previous hotels with latitude and longitude dataframe

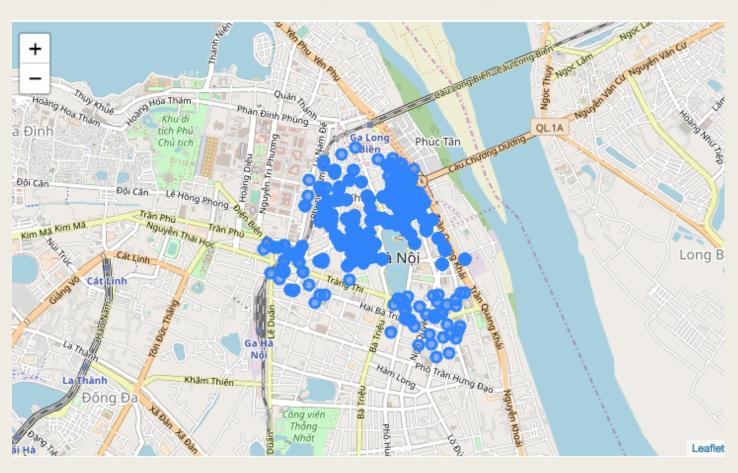
	Venue	Venue_lat	Venue_Ing
0	Bun Cha Ta	21.034373	105.854382
1	Orchid Cooking Class & Restaurant	21.033874	105.853270
2	Bami Bread (Bánh Mì Bami)	21.034072	105.851321
3	Phở Sướng	21.033518	105.852039
4	Gia Ngu Restaurant	21.033029	105.852704

```
print (len(place))
```

1468

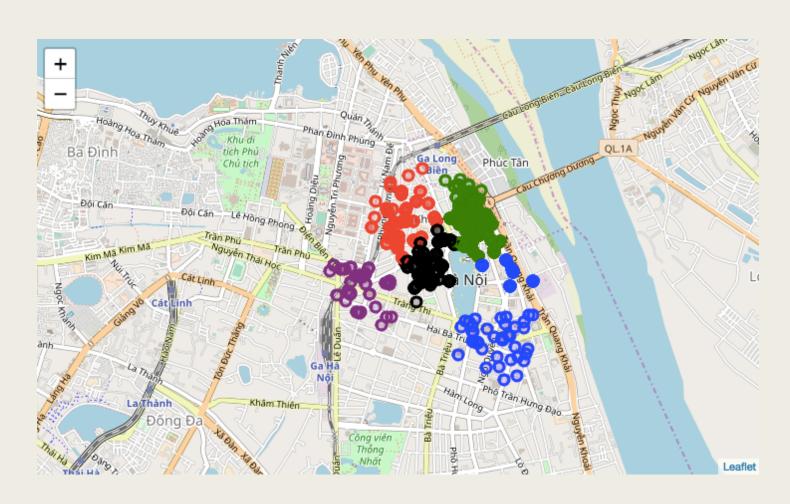
# Data

#### Map of the travel places



# Methodology - K-mean clustering

Map of the clustered travel places



### Discussion

The problem of this method is that I pretended the travel and food place according to the Foursquare query are the place for foreign traveler. Another problem is that the model did not care about other tourism office in the area. The competitive aspect is removed from the model because the lack of information and data.

#### Conclusion

In this project, through a k-means cluster algorithm I separate the tourism area in the Hanoi center into 5 sub areas. To get the data related to these area, I come from the information of best 10 hotels according to the Tripadvisor website.