



**Capstone Project**  
**City of Opportunity : London**

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# Introduction

- London is the capital of both UK and England.
- There are many opportunities for people in London to start a new business.
- London is an expensive place to live and thrive.
- Many businesses want to open a venue here and many pay top price to have their window on Piccadilly or Oxford Street.

# Business Problem

The questions that I aim to answer in this project are the following:

- Who want to start their own business and cannot really afford to open in the City yet?
- Where is it best to open a new place?
- Where will it be cheapest and will have enough people living around to be popular?
- Where the competition is not too overwhelming?

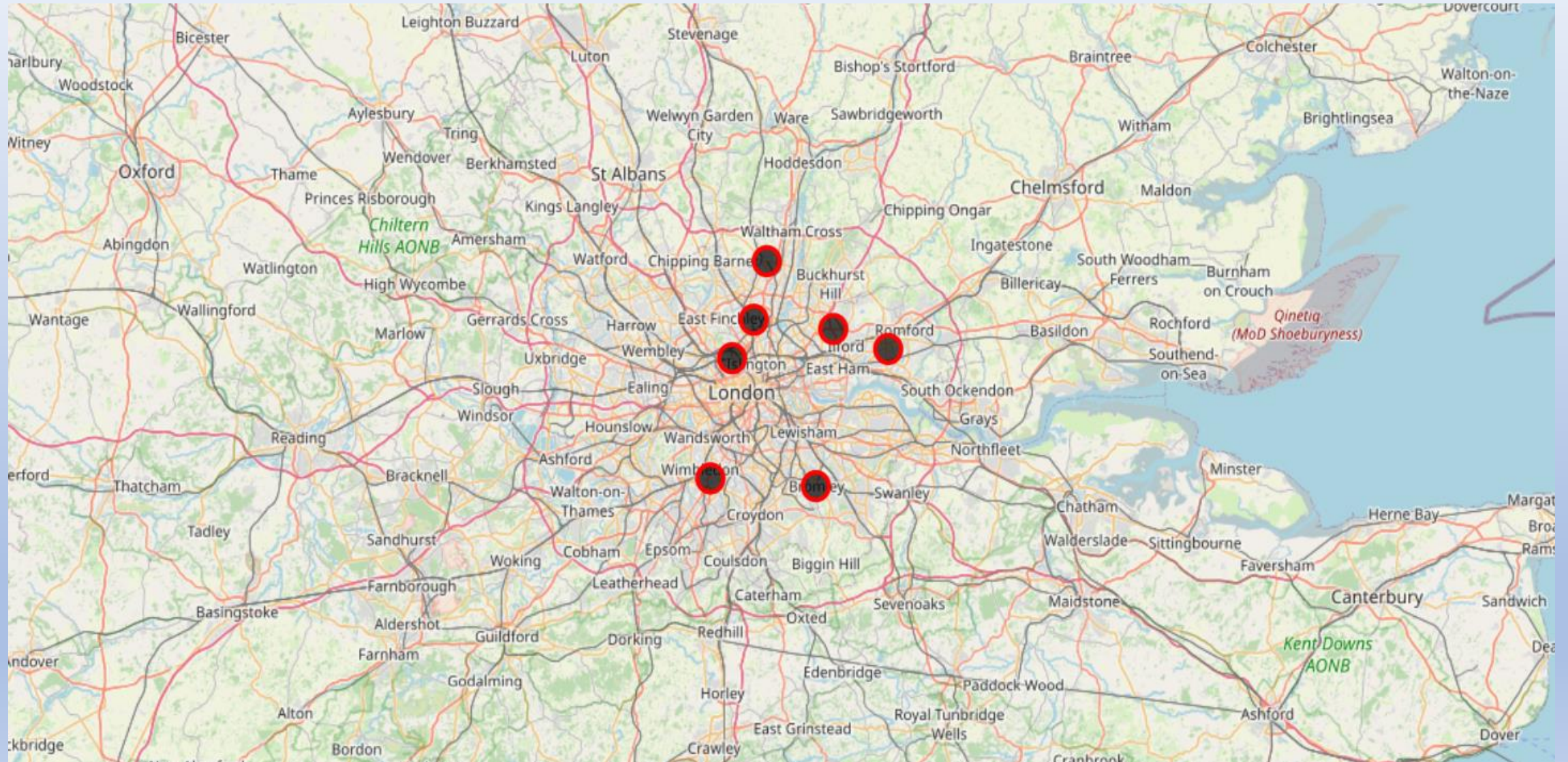
# Data acquisition and cleaning

For this project we need the following data:

- List of London Boroughs with co-ordinates from Wikipedia.
- The Most popular venues in the respective boroughs from Foursquare data.
- Online based data on rent in London boroughs.

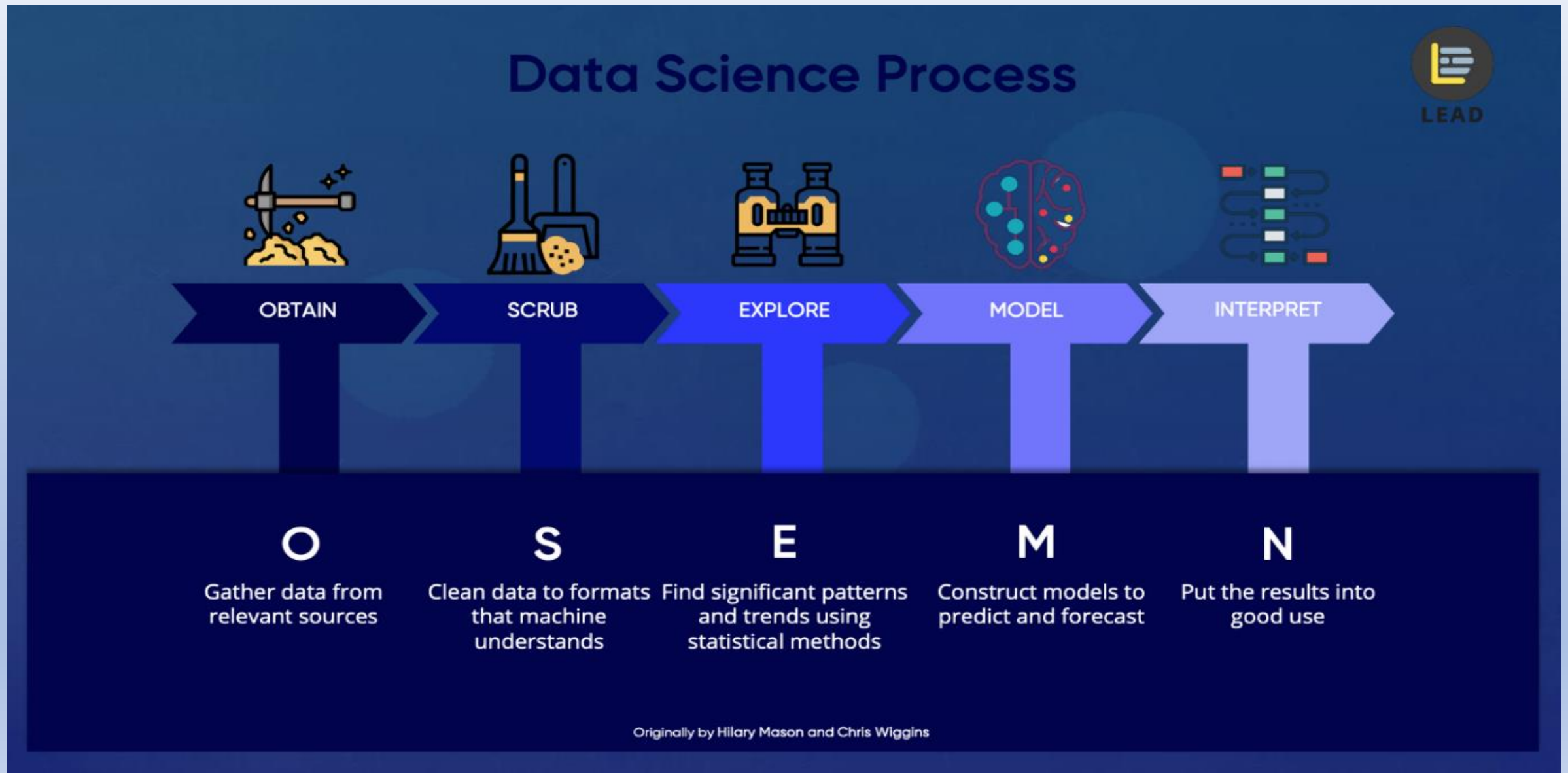


# Data Visualization





# Methodology



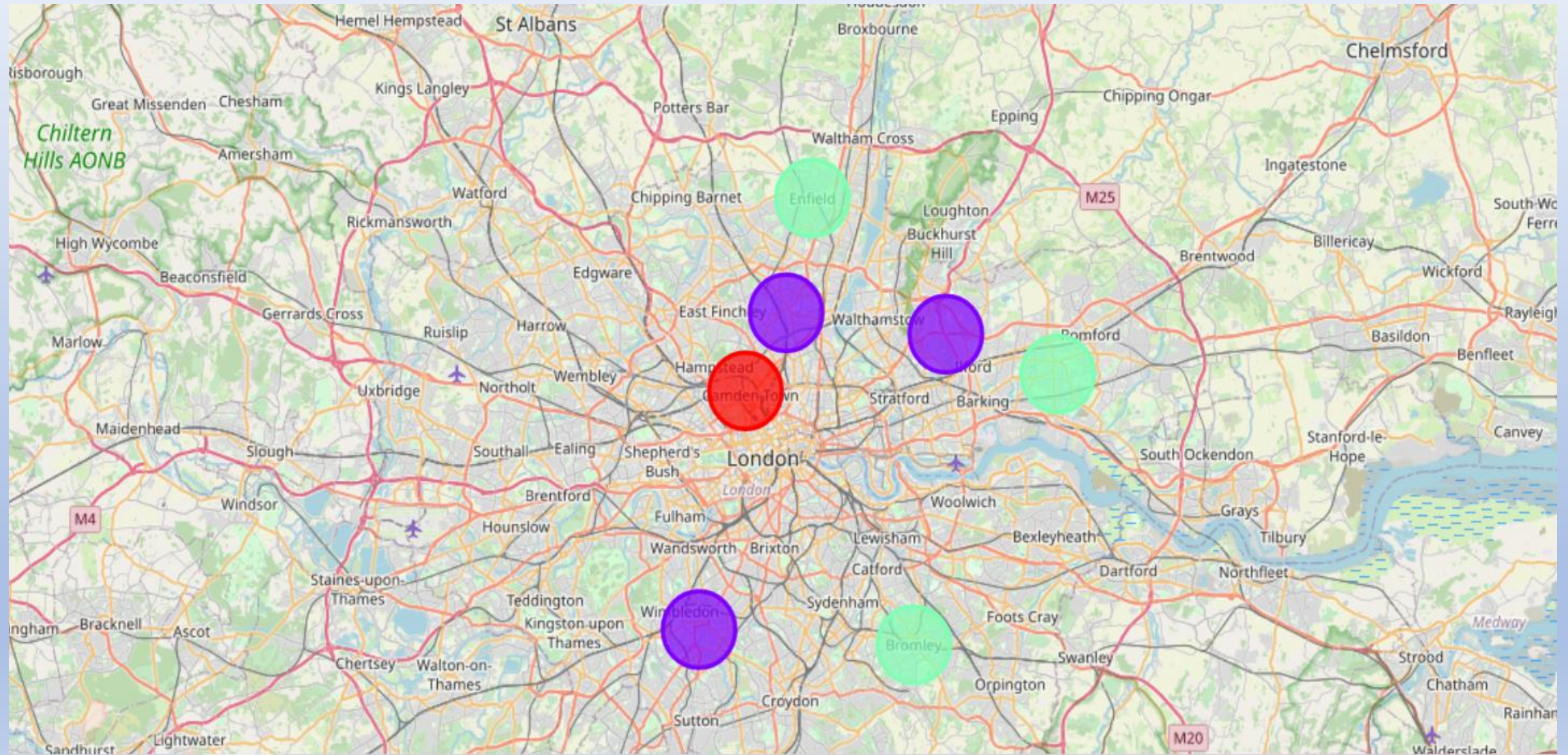
# Results

Reviewing each cluster as per method above, we learn:

- **Cluster 0:** Havering and Bexley are good fits to our target boroughs: both have entertainment venues as most common, both rather big and quite populated. In this situation perhaps Havering has a slight financial edge - cheaper rent a more incline to pubs and coffee shops in the area.
- **Cluster 1:** This cluster is heavy favoring pubs – predominantly as centers of socializing of the local communities. First cluster boroughs have majority of people living further from the central London, keeping to the old ways of pub socializing.
- **Cluster 2:** Enfield and Bromley are bigger outer London boroughs, and the data, that we get can differ massively within the same borough: those living closer to M25 in the suburban houses tend to stay indoors and spend more time with their families and cook at home. On the other hand, those living closer to the inner borough limits may be more outgoing, and because of this contribute the most to our dataset. Regardless, with not too high rent, big and a very diverse population, Enfield and Bromley are worth considering.
- Within top 5 places of interest in every borough is an ethnic restaurant. Because of the different ethnicities in the boroughs, some choices will be more favorable amongst the specific group in the area.
- Rent price is not so much a factor for going out - the demand is not affected by difference in costs. There is a spike in rent price going into London, but further away the cost is not too much of an issue.



# Data Clustering (K-Means Clustering)





# Discussion

(Based to constraint on API calls and search radius, the true result might vary.)

Looking at the data, Havering, Bromley, Bexley and Enfield are the best places outside of Central London where a new venue is worth opening. However, a lot of information is not considered, and cannot be obtained from Foursquare Developer:

- Higher ethnic presence in each borough can and will influence the popularity of a given cuisine.
- Closer proximity to Inner boroughs and better transport links allows people to travel to the neighboring borough and impact the measurements.
- Many small venues are not registered in Foursquare and are marketed via word-of-mouth and are not considered.

Regardless, the analysis provided an insight into what people like and opt for, when it comes to going out in their own neighborhoods.

# Conclusion and future work

- This project made use of the free Sandbox Tier Account of Foursquare API - Limitations as to the number of API calls and results returned.
- Finding of these project will help relevant stakeholders i.e., New entrepreneurs regarding the best venues to start a new business.
- The project also provides big business houses who wants to start a new branches in London boroughs.

# **Thank you!**

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