

The battle of the neighborhoods

Opening a restaurant in London

August 2020 Haoyun Zhang

Introduction

Background & Business problem

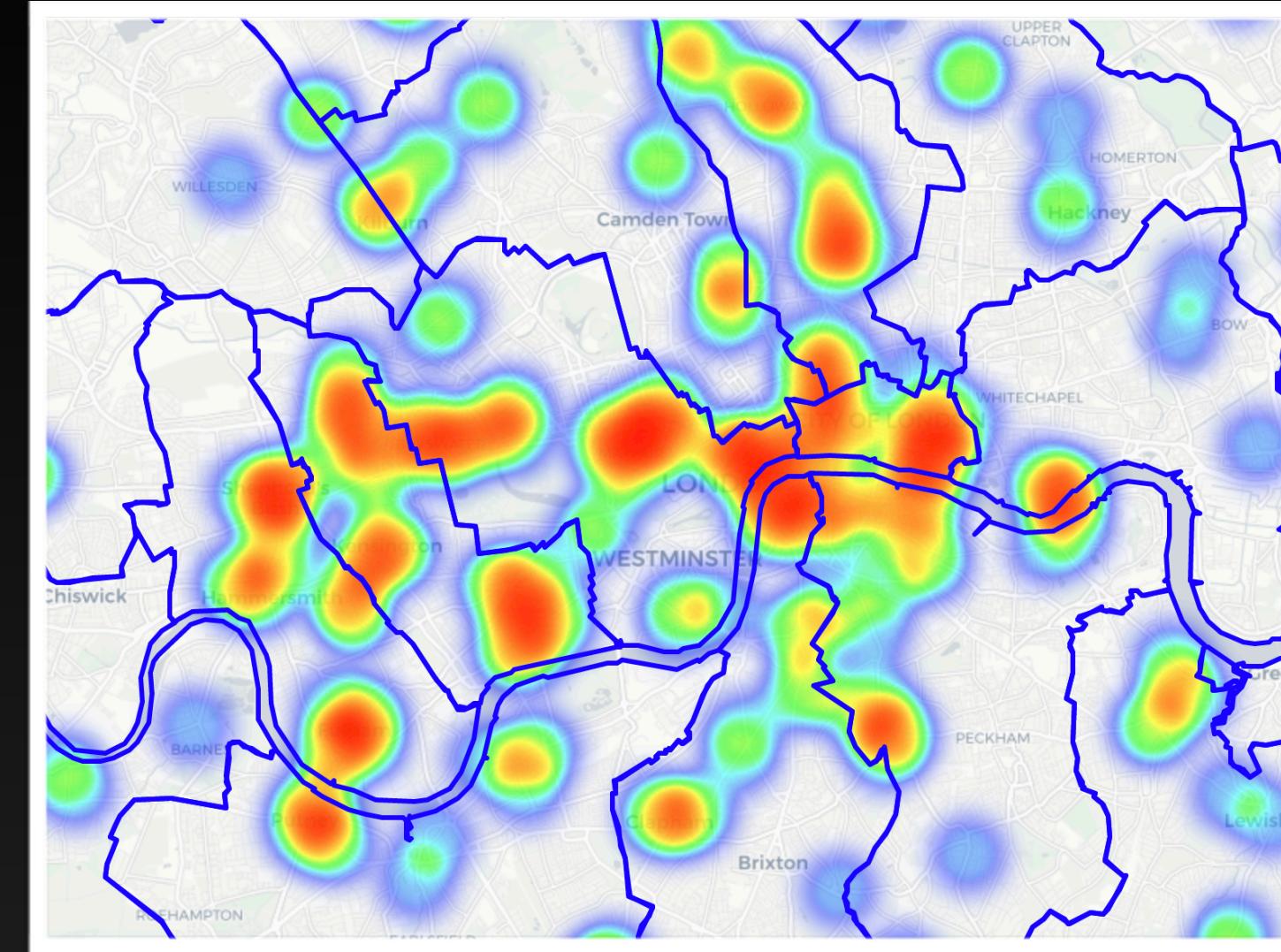
- The Guardian writes '*Covid-19 has also shown us that the industry is on even shakier ground than we suspected: the tight cashflow, high overheads, and a reliance on tourism were all pointing in a bleak direction before the lockdown.*'
- Profound changes brought by Covid-19 may have turned over the 'table'. Despite the industry heading in a bleak direction, there are people that want to save about the industry that nourish their communities. ***There may be a silver lining in the unprecedented event.***
- As drinkers and diners willingness to return to the street erupts, some may consider now an opportunity to open a restaurant in London.

London Overview

Selecting a borough

Our Strategy - We are looking for:

- A borough with the highest level of activity based on the density of the restaurants and the total turnover of restaurants in the borough.
- We focus on one cluster of the restaurants in the selected borough; identify locations with low level of competition but are also close to the centre of the cluster.
- Heat map on the right shows density of restaurants at the centre of London.



London Overview

Selecting a borough

- **Right table:** data by Foursquare
 - 1227 restaurants
 - City of Westminster with the highest 123 restaurants.
- **Left table:** London restaurants total turnover August 2019
 - Total of 8.5 million
 - City of Westminster with the highest 2.7million
- We will focus on **City of Westminster**

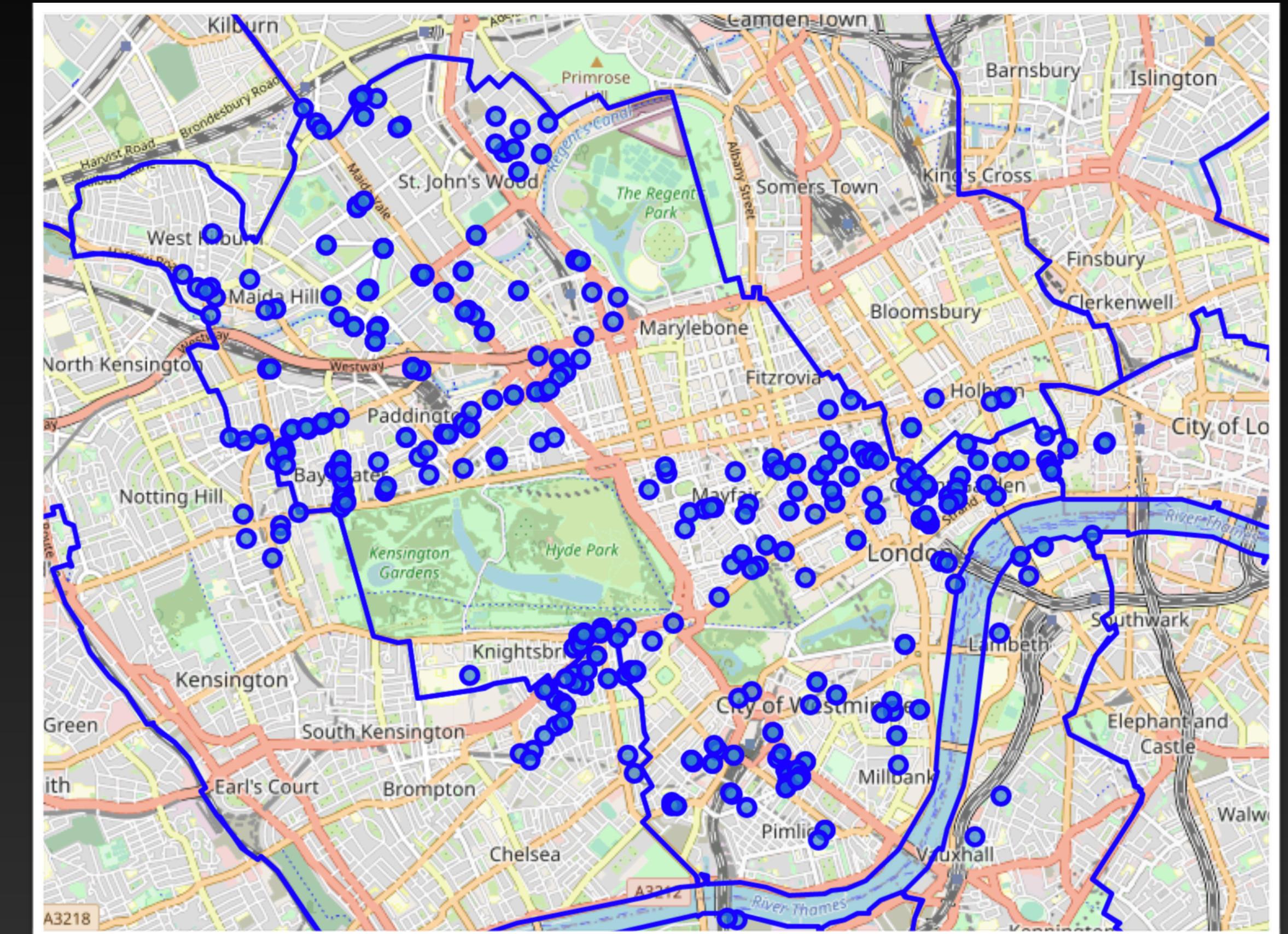
Borough	Turnover
City of Westminster	2,763,754
Southwark	874,703
Camden	804,345
Wandsworth	617,145
Kensington and Chelsea	500,349
Hillingdon	444,413
City of London	311,783
Islington	300,239
Redbridge	256,210
Tower Hamlets	211,636
Hackney	173,965
Brent	153,465
Lambeth	140,759
Hammersmith and Fulham	117,085
Barnet	102,309
Richmond upon Thames	96,500
Ealing	74,945
Bromley	65,621
Harrow	54,057
Newham	49,505
Haringey	49,113
Greenwich	48,171
Croydon	44,874
Merton	44,645
Lewisham	35,269
Waltham Forest	35,068
Enfield	32,540
Hounslow	31,541
Sutton	30,225
Havering	29,553
Kingston upon Thames	25,998
Bexley	23,620
Barking and Dagenham	8,733
Total	8,552,138

Borough	Count
City of Westminster	123
City of London	112
Lambeth	85
Southwark	80
Islington	80
Camden	74
Ealing	73
Kensington and Chelsea	71
Barnet	65
Hammersmith and Fulham	63
Enfield	43
Wandsworth	39
Lewisham	36
Richmond upon Thames	33
Haringey	29
Redbridge	25
Waltham Forest	20
Kingston upon Thames	19
Hounslow	18
Newham	18
Bromley	18
Brent	16
Hackney	15
Havering	12
Greenwich	11
Tower Hamlets	10
Bexley	9
Harrow	9
Croydon	7
Merton	6
Barking and Dagenham	4
Hillingdon	4
Total	1227

City of Westminster

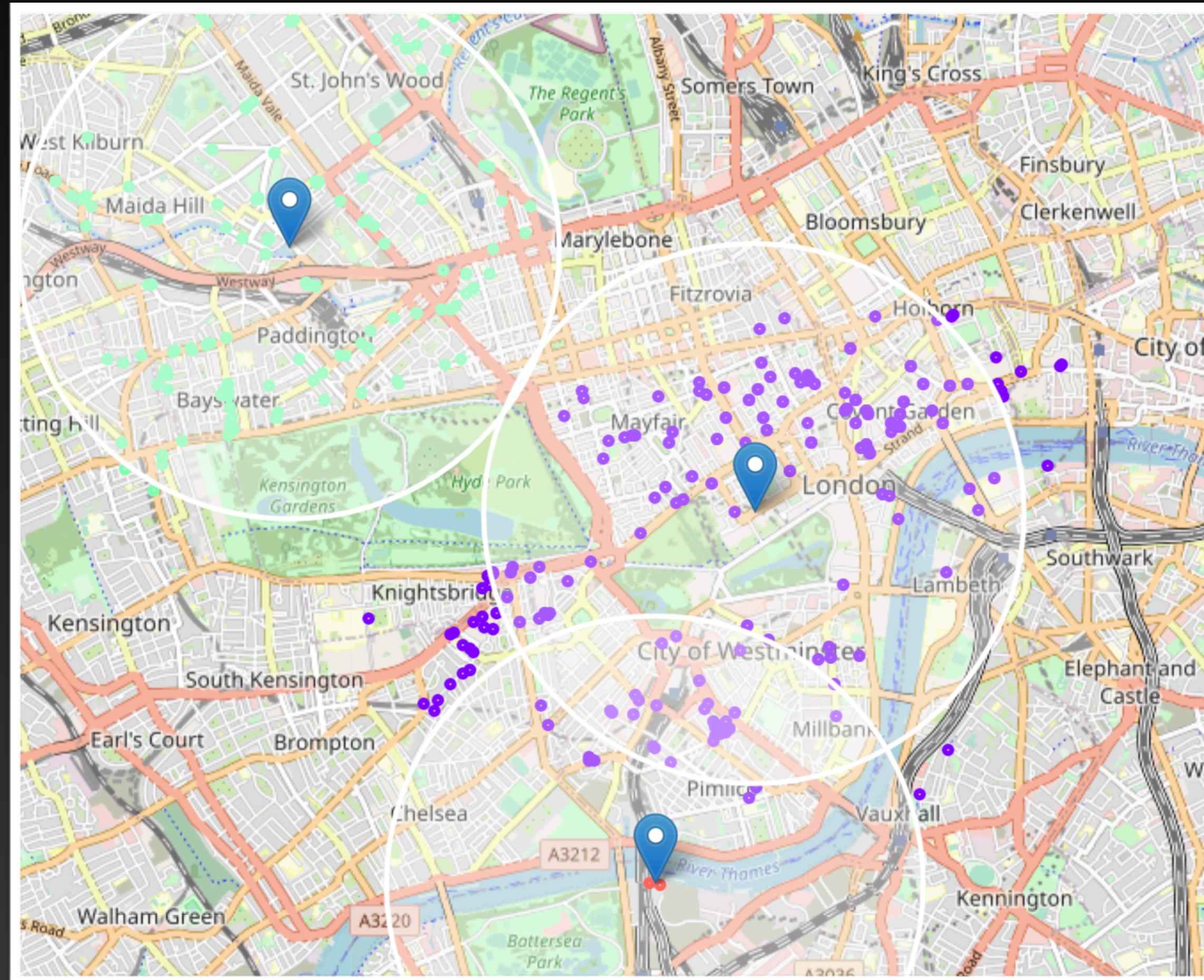
Exploratory analysis

- 505 restaurants
- 2 major clusters
- Areas include: Paddington, Bayswater, Mayfair, Covent Garden, Knightsbridge, Pimlico
- All very promising areas for a new restaurants.



Clustering & Centroids

Selecting a cluster



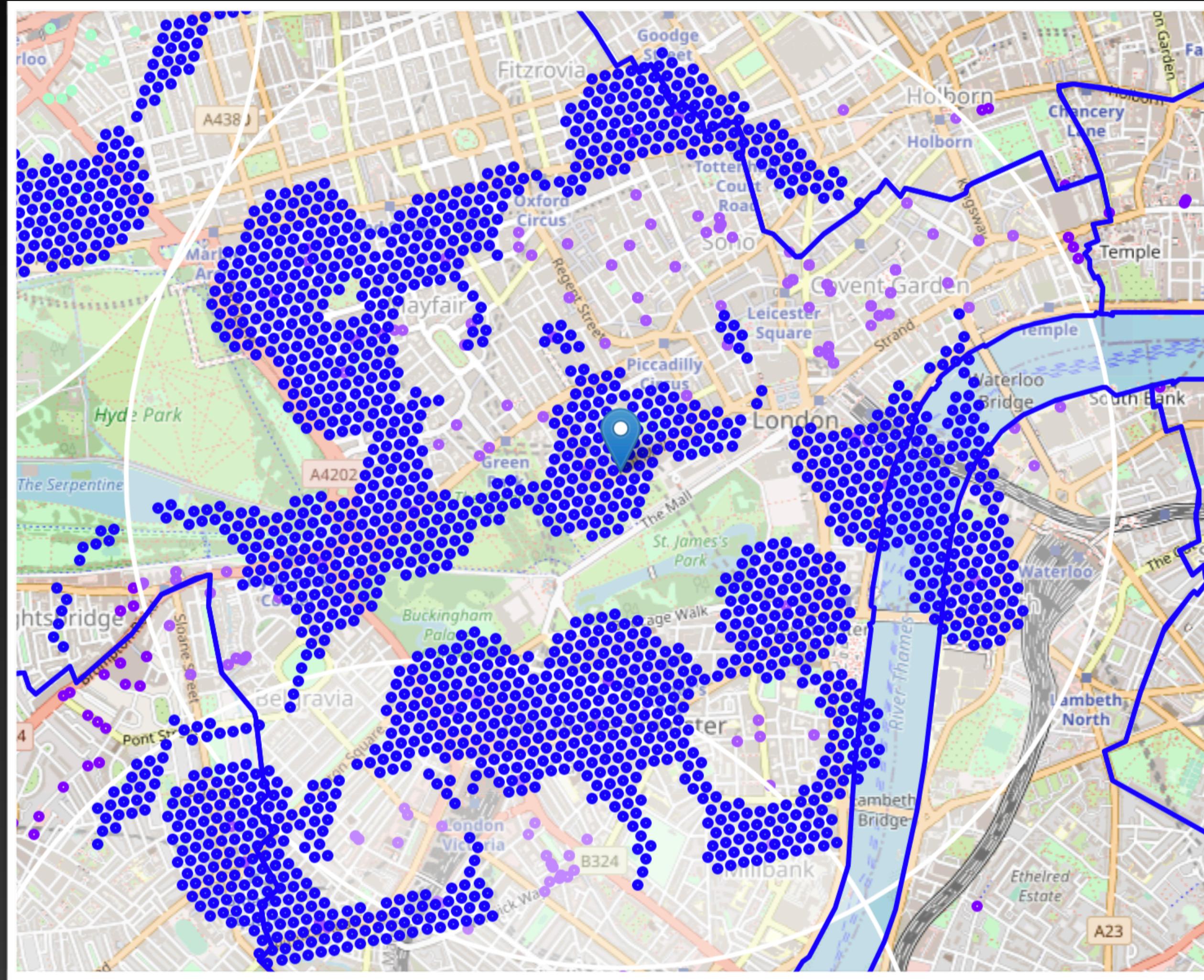
- DBSCAN returned 3 clusters
- Cluster 1 covering purple dots includes famous centers of culinary attractions such as,
 - Knightsbridge (fine dining)
 - Covent Garden (tourist attraction)
 - Mayfair(fine dining)
 - A *golden area for restaurants*

Finding ideal locations

Generating and selecting

- A radius of 1.8km from cluster 1 centroid
- Generate equally-spaced locations, 50m apart
- Select locations that have 1 to 5 restaurants within a radius 250m

Ideal locations



- 5274 generated
- 1970 selected shown in left
- Periphery of sub clusters
 - Covent Garden
 - Mayfair
 - Victoria train station

Ideal locations Cont'd

Clustering by K-means, 20 clusters, 500 meters radius for each cluster

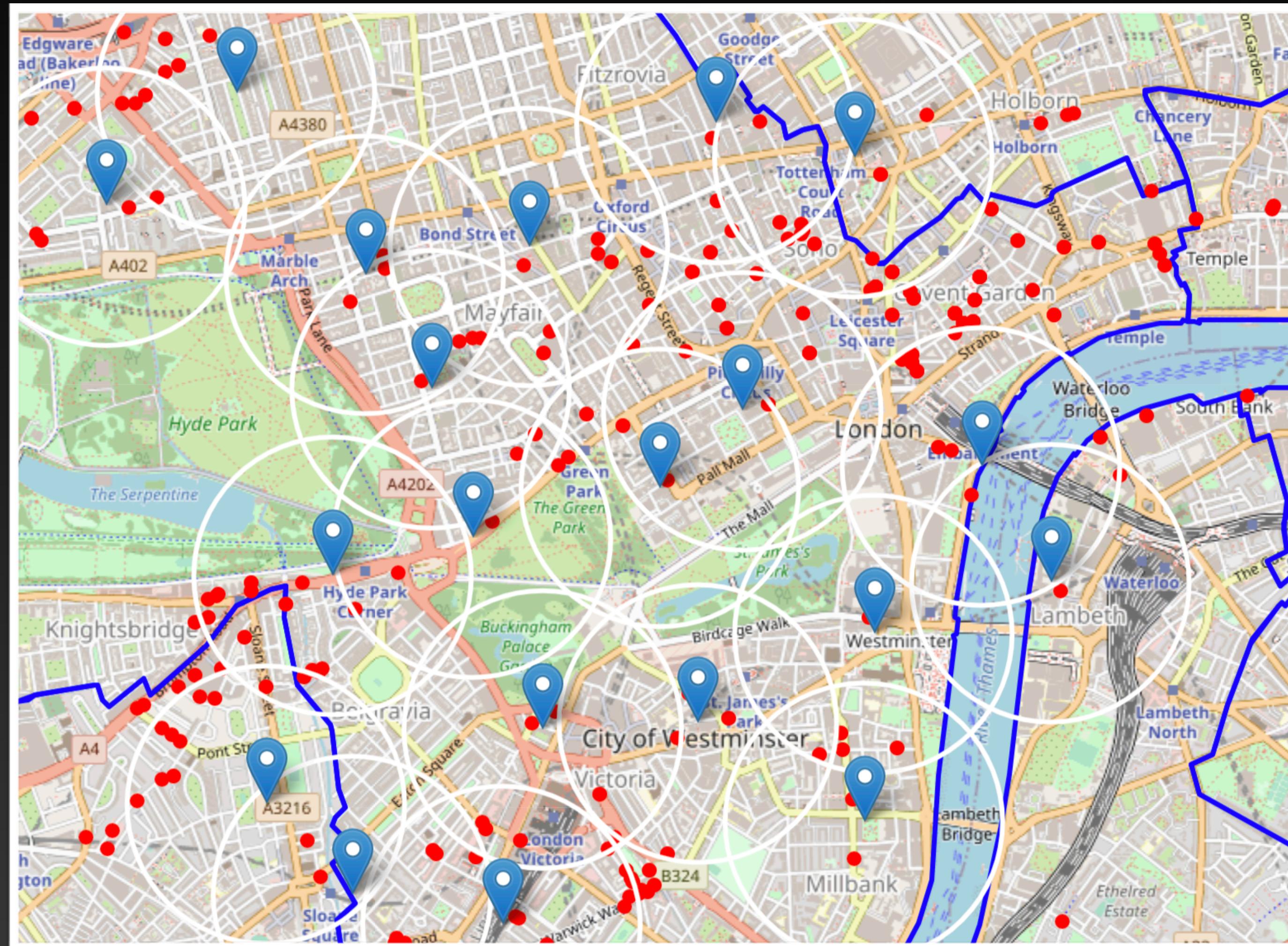


Table of all ideal locations clusters centroids

Address	No. Res. within 250m	No. Res. within 500m
Chutney Mary, Little St. James's Street, St. James's, Victoria	1	10
Lees Court, 22, Lees Place, St. James's, Mayfair	3	8
Sri Suwoon Thai Restaurant, 44, Hugh Street, St. James's, Victoria	3	22
Joseph Bazalgette, Victoria Embankment, Covent Garden	4	21
York House, 10-12, Berners Street, Cavendish Square & Oxford Market	2	14
62 Buckingham Gate, Spenser Street, Westminster, Victoria	5	11
2, Hyde Park Square, Paddington	2	16
Little George Street, Westminster, Millbank	2	10
Parkside, Knightsbridge, 28-52, Knightsbridge, Belgravia	5	27
16-22, Bourne Street, Belgravia	3	11
Bryanston Square, Marylebone	3	15
20a, Brook Street, St. James's, Mayfair	1	17
County Hall, Belvedere Road, South Bank, Lambeth	1	3
A4, St. James's, Mayfair	1	9
Victoria Square, St. James's, Victoria	2	12
Buchanan House, 3, St James's Square, St. James's, Covent Garden	3	20
St John's Building, 79, Marsham Street, Westminster, Millbank	3	11
Pavilion Road, Royal Borough of Kensington and Chelsea	1	16
Thomas Goode China and Glass, 19, South Audley Street, St. James's, Mayfair	4	14
St Giles, Bloomsbury, London Borough of Camden	3	29
Mean = 2.6		Mean = 14.8

Results and Discussion

- 2.6 restaurants nearby on average in radius 250m, 14.6 in 500m
- *County hall*(lowest in 500m) is a residential building next to Waterloo train station and London eye, both of which contribute significantly to foot traffic, thereby bringing possible high volumes of customers. It is a promising area for a new restaurant.
- *St Giles, Bloomsbury*(Highest in 500m)is next to Tottenham court road tube station and minutes away from Covent Garden and Soho. Surrounded by tube station and center of popular hangouts, the area is no less appealing than *County hall*.

Caveat

It is crucial to note that opening a restaurant is ultimately a comprehensive task with many dimensions that need to be considered. Location is only one piece of the puzzle.

Depending on the actual financial budget, cuisine style, targeting audience, stakeholders may adjust their choices among all suggested centroids. This project only aims to provide information in the aspect of location and practice implementation of studied codes.

Thank you