



# Opening a new restaurant

Using location data to help determine candidate areas

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# Agenda

- \* Provide a list of established West African Restaurants (WAR) within London
  - \* Distinguish WAR from other restaurants on folium map
  - \*Provide a list of 15 candidate areas for opening a new WAR
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# Background



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- Based on data retrieved from the London datastore - the population of migrants since 1821 has steadily increased.
- Cultural integration via intermarriages, friendships built within the workforce or academia etc has led to positive adaptations of social norms. This is evident in food and music.

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# Data acquisition and cleaning

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- Webscraped Yelp, Tripadvisor and Zomato using Webgrinder
- All metadata fields such as review, website links and cuisine types was removed.
- Fields retained: Name, Address, Longitude and Latitude
- Remaining data was taken from FourSquare
- **2688** restaurants in total recovered from in and around London

Websites	African Restaurants Scraped
Zomato	235
FourSquare	29
Yelp	227
Tripadvisor	158

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7%

Restaurants in London are African

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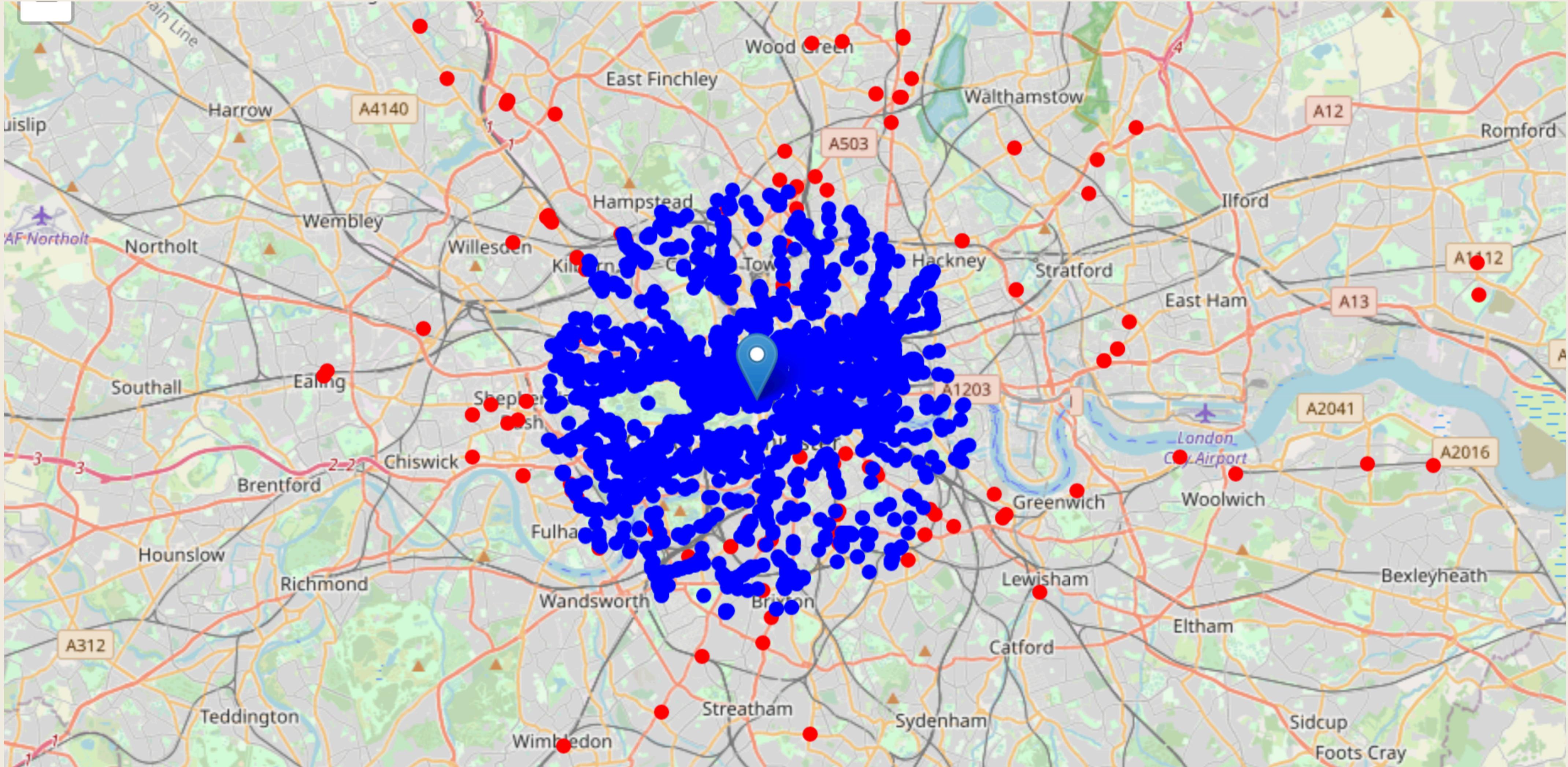


Fig. 1 - A plot of all **2688** restaurants. The **blue dots** represents non African Restaurants and the **red dots** represents African restaurants in and outside the 6km radius from the center of London.

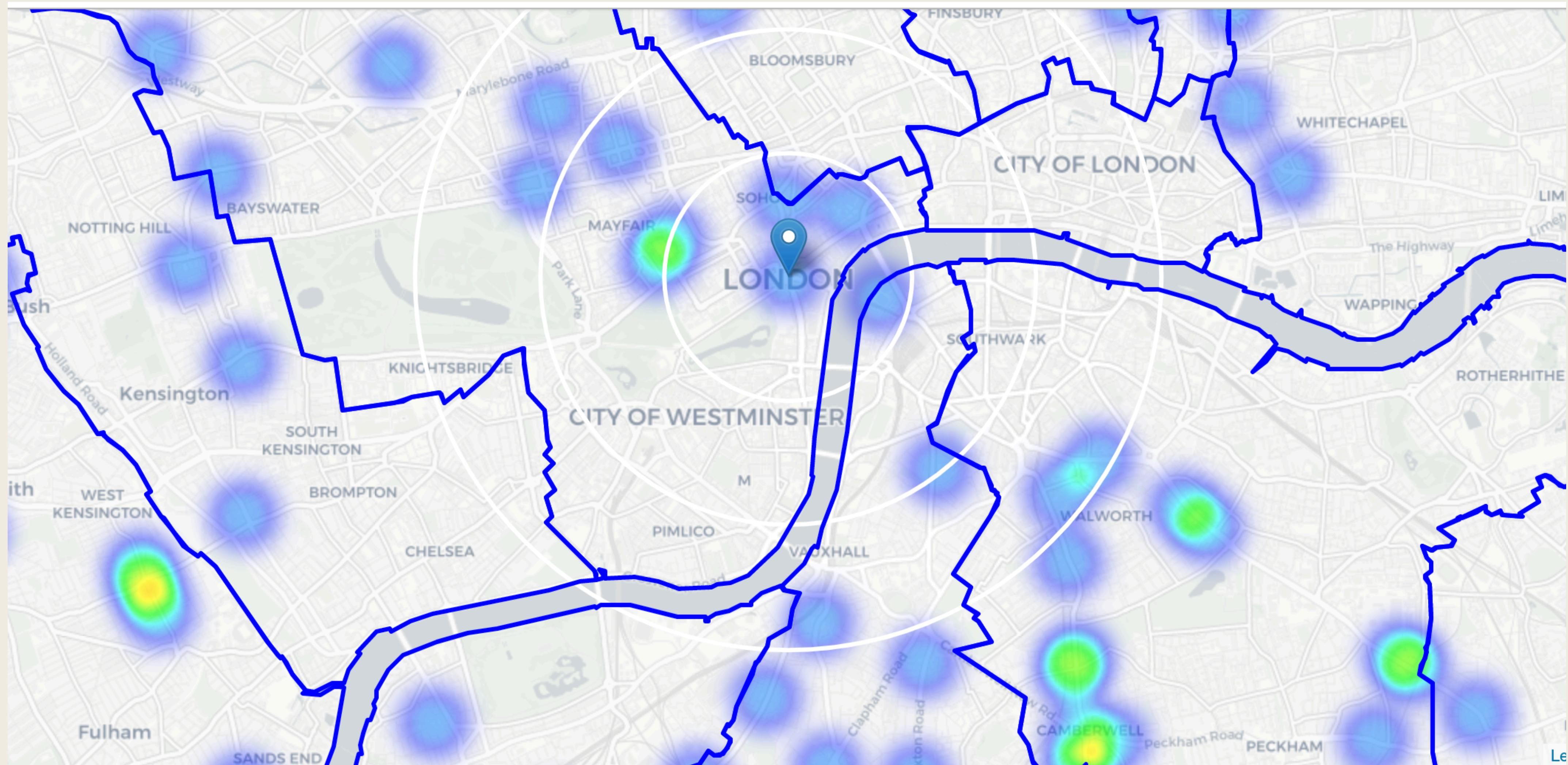


Fig.2 - Heat map of only African restaurant density in London

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# New Restaurant locations

# Restaurants near candidate areas

Latitude	Longitude	X	Y	Restaurants nearby	Distance to an African restaurant
51.472453	-0.083196	-544764	5.81E+10	4	1050
51.472636	-0.081806	-544664	5.81E+10	4	1113
51.472198	-0.091095	-545314	5.81E+10	18	760
51.472381	-0.089705	-545214	5.81E+10	13	777

Table.2 - location data of restaurants that fall outside the scope. Locations with no more than two restaurants nearby was **1245**. Locations with no African restaurants within 400m was **2060**. And locations with both conditions met was **1104**.

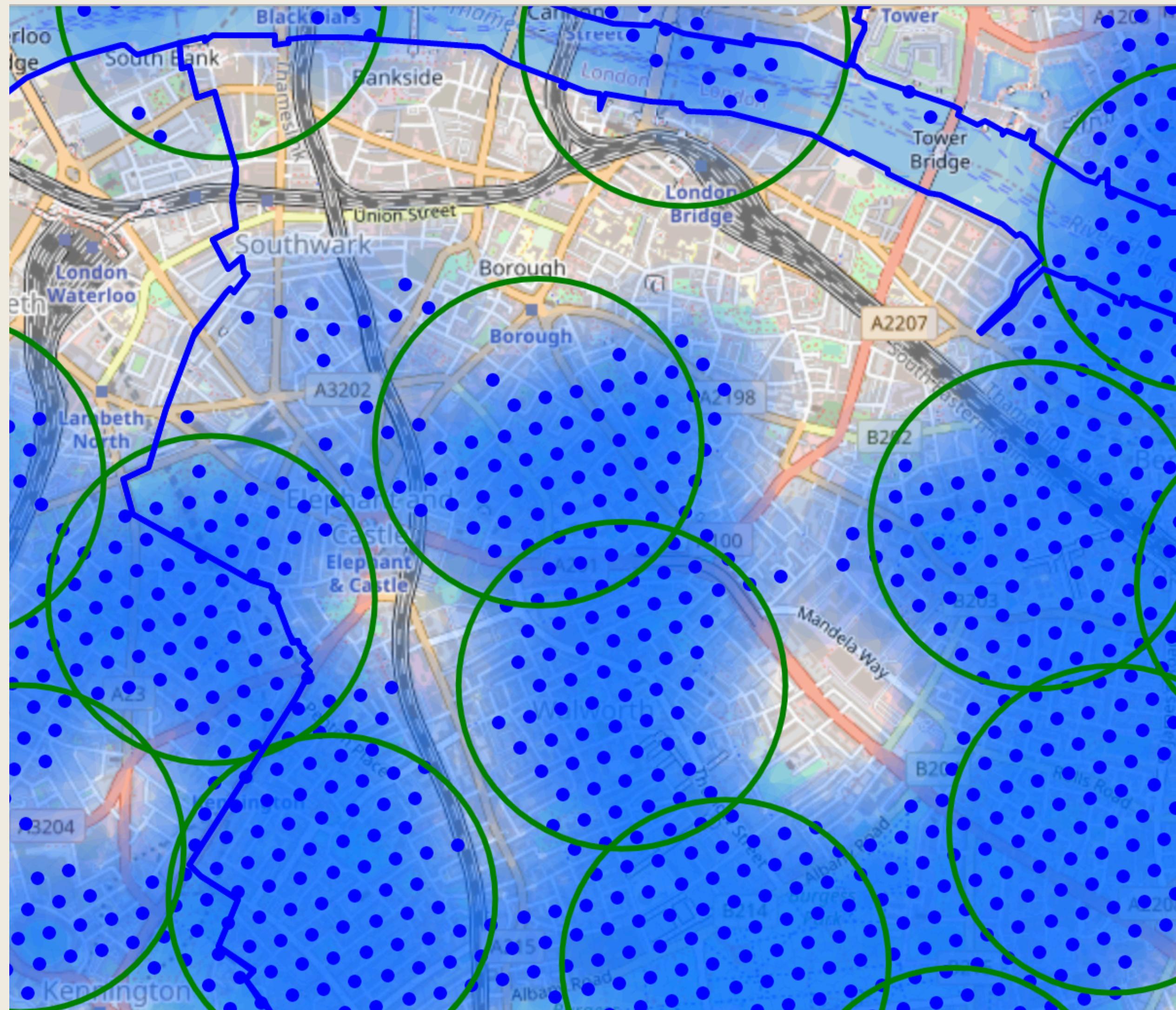


Fig.3 -clusters represent groupings of most of the candidate locations

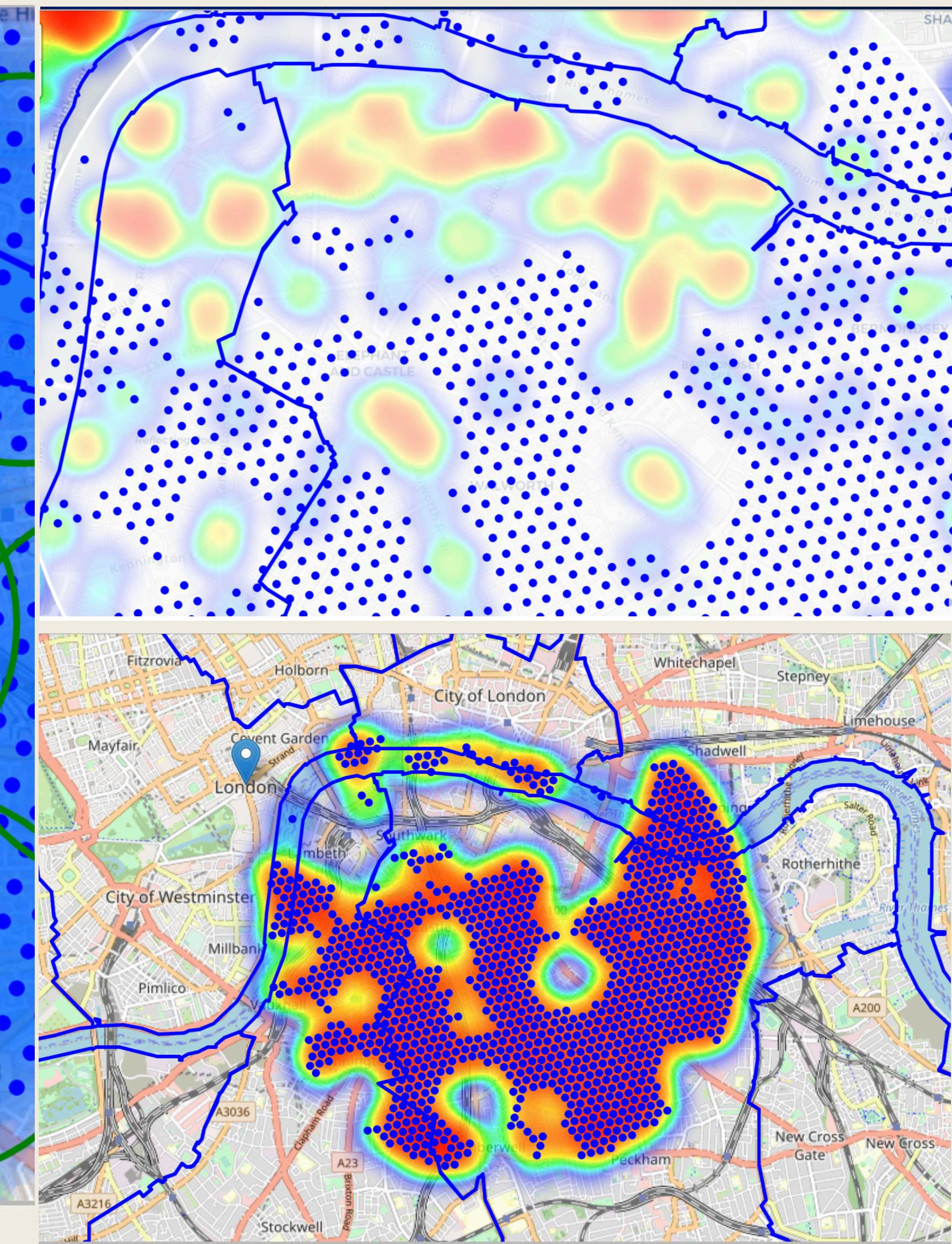


Fig.4 & 5 - indication of zones with low number of restaurants in vicinity, and \*no\* african restaurants at all nearby

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# Conclusion and future directions

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- Clustering was performed in order to create major zones of interest.
- 15 candidate addresses were produced as consequence.
- The final decision on the optimal restaurant location will be made by stakeholders based on specific characteristics of neighborhoods
- The limitation we found whilst conducting our analysis was that we were only able to take in account restaurants that had registered with one of the known providers.
- The distance from the nearest African restaurant to the center of one of the candidate areas is based on the data taken from Foursquare (*Table.2*)