



IBM Coursera Capstone Project

Selecting travel destination for the client of a travel agency



Table of Content

- Introduction
- Data Description
- Methodology
- Results
- Discussion and Conclusion



Introduction



- Global travel and tourism industry worth \$ 1.74 trillion in 2019.
- EMEA region accounting for the bulk at \$ 644 billion.
- Travel agencies play a critical role in the industry and at times need to recommend destinations to their clients.
- LeisureWay Travels need to recommend one of 3 cities Lagos, Abuja and Accra to a coffee loving family on a brief 2 day stopover enroute South Africa from the United States.
- The family wants the city with coffee shops in closest proximity to each other



Data Description



- The data to be used in this project will be location data of the cities and coffee shops in those cities.
- Data will be sourced from Foursquare.com a popular location data service platform used by a lot of companies.
- Data will be accessed and retrieved from Foursquare using their foursquare API.



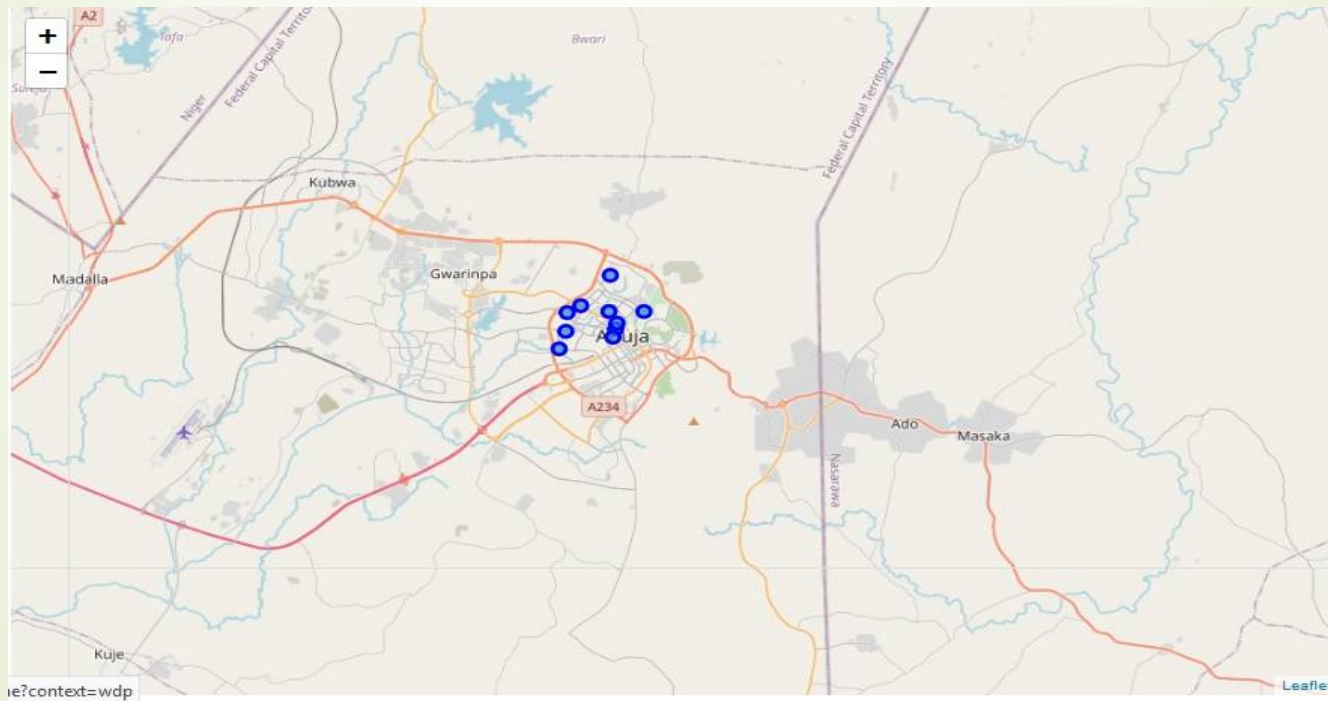
Methodology



- Using the Foursquare API, the coffee shops category ID of 4bf58dd8d48988d1e0931735 was used to narrow down the search results to only coffee shops for the 3 cities.
- The results were now visualized by plotting on maps with coffee shops marked by blue circles.
- To determine proximity, the mean coordinates will be determined for each city and the distance to mean coordinate for each coffee shop will be measured.

Map of Lagos showing coffee shops

Results



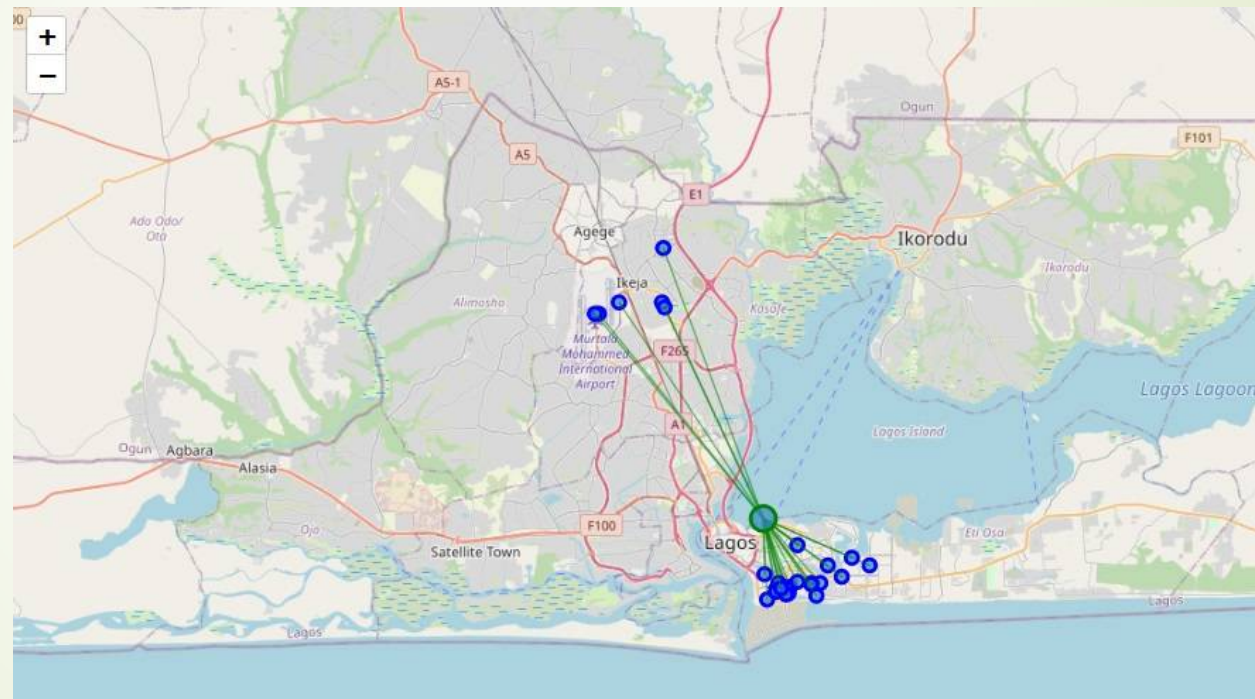
Map of Abuja showing coffee shops

Results



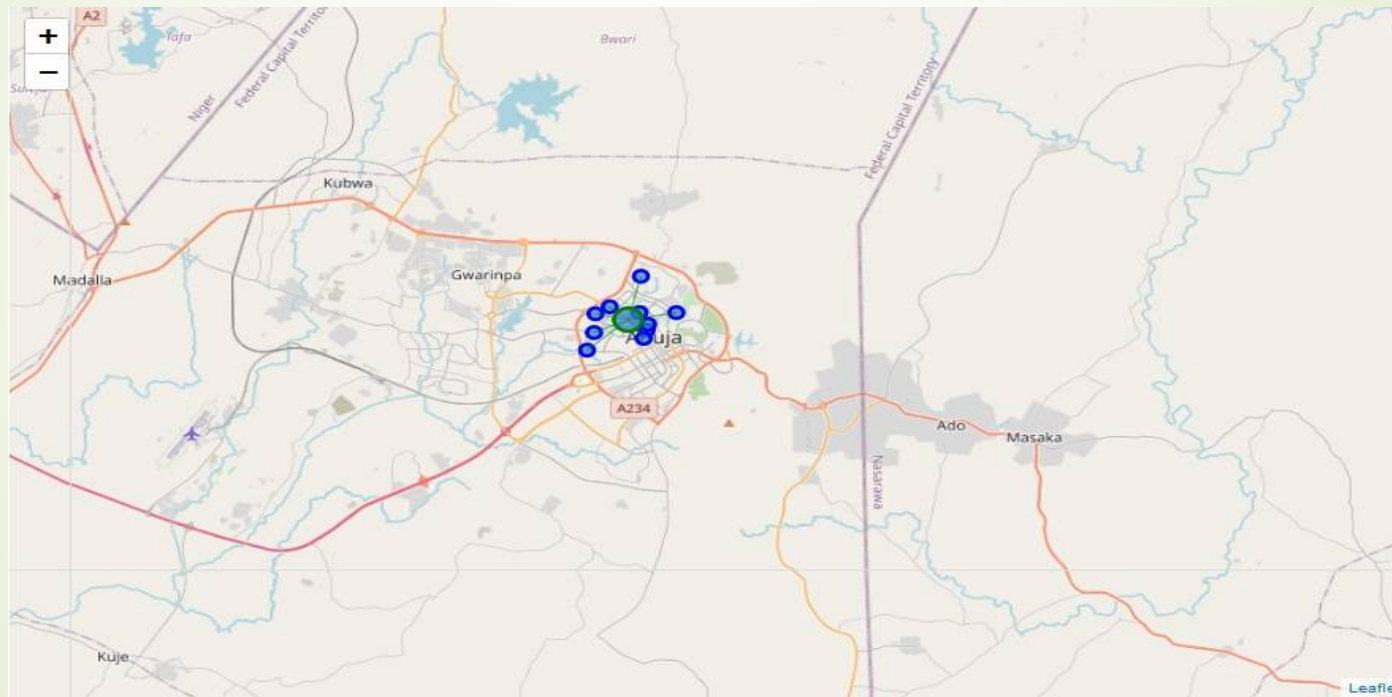
Map of Accra showing coffee shops

Results



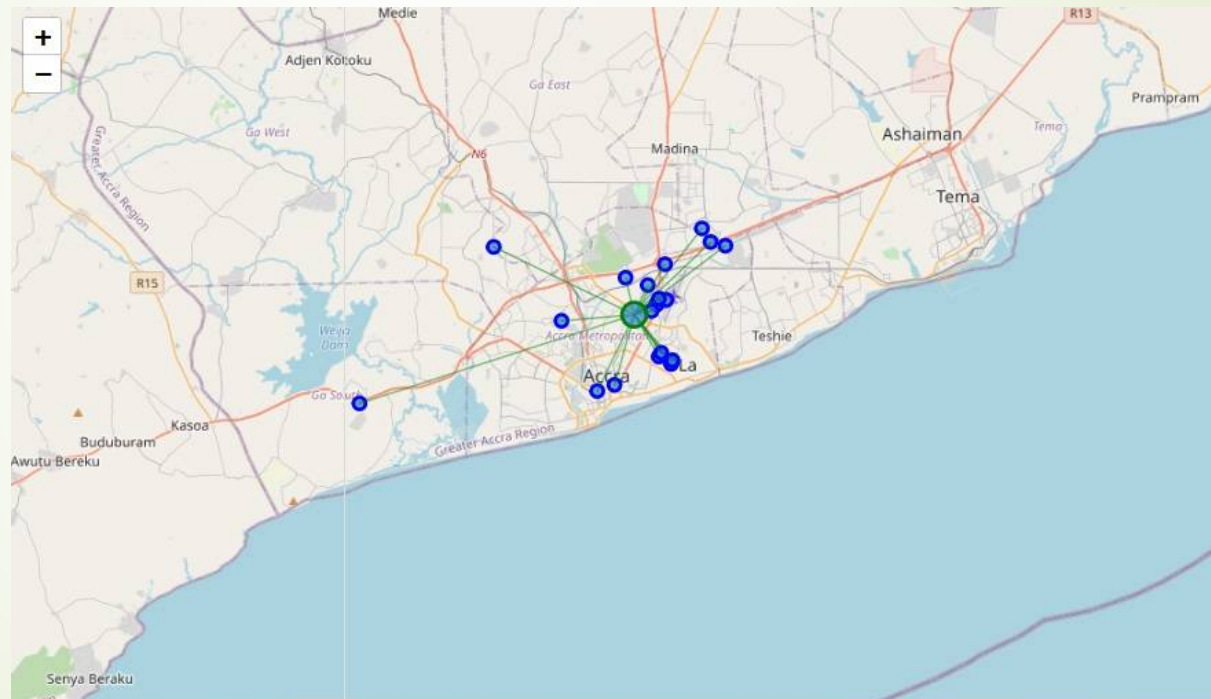
Map of Lagos showing coffee shops and their distance to mean coordinates

Results




Map of Abuja showing coffee shops and their distance to mean coordinates

Results



Map of Accra showing coffee shops and their distance to mean coordinates

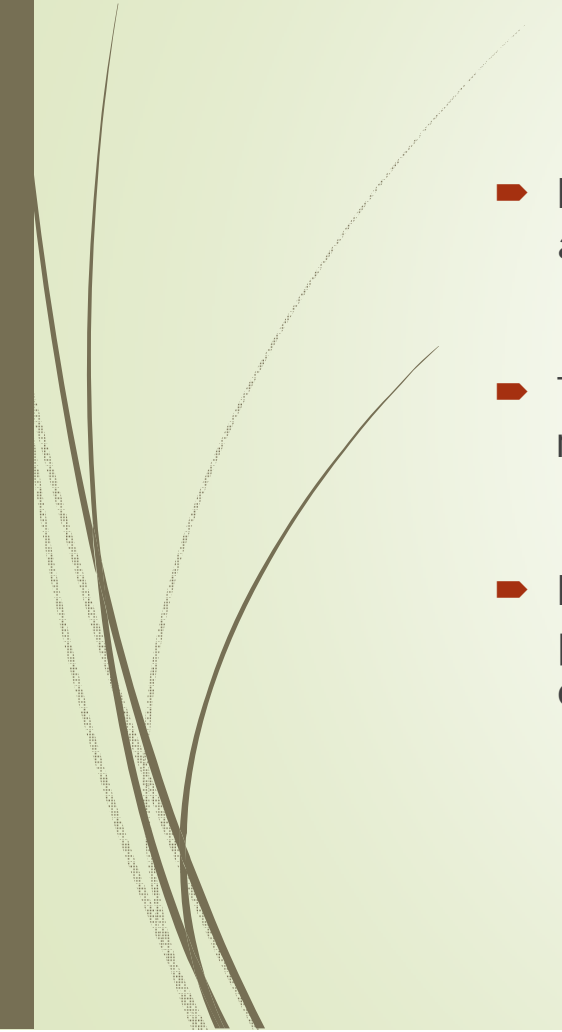


Results

City	Mean Distance from Mean coordinates
Abuja	0.01616734229575901
Accra	0.04085511761575744
Lagos	0.06385700846991325



Discussion and Conclusion

- 
- Foursquare has a limit of 100 results per query but none of the 3 cities were able to return a 100 results.
 - This indicates that the coffee shop market is still a burgeoning one in the region.
 - Based on the analysis Abuja of all the 3 cities have coffee shops in closest proximity to each other and should be recommended to LeisureWay's client.



Thank You.