Coursera Capstone

IBM Applied Data Science Capstone
Opening a Asian Restaurant in London, United Kingdom



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Business Problem

The objective of this Capstone project is to analyse and select the best locations in the city of London to open a new Asian restaurant. Using Data Science methodology and instruments such as Data Analysis and Visualization, this project aims to provide solutions to answer the business question: Where in the city of London, should the investor open an Asian Restaurant?

Data

Data required

- → List of locations and boroughs of London
- → Latitude and longitude coordinates of those neighborhoods.
- → Venue data, particularly data related to restaurants.

Sources of data

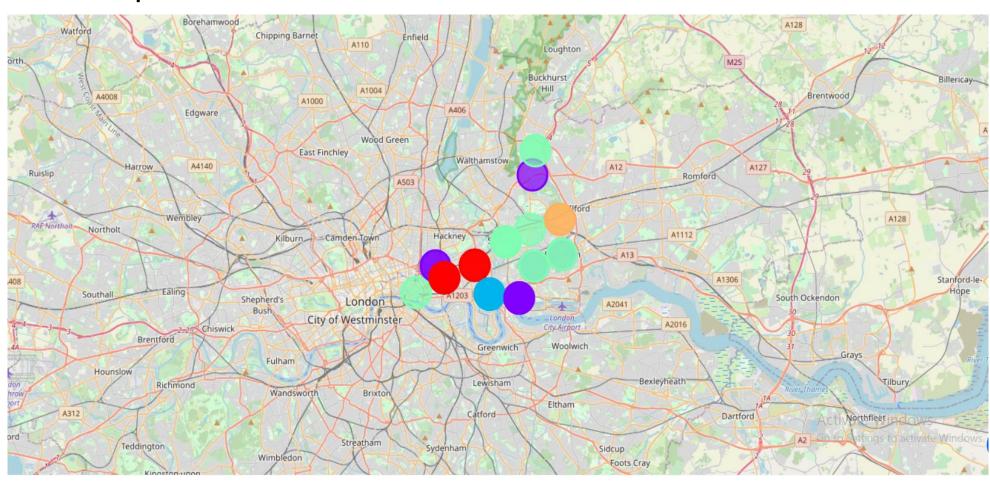
- → Open source dataset from https://en.wikipedia.org/wiki/List of areas of London and https://en.wikipedia.org/wiki/Demography of London
- → Geocoder package for latitude and longitude coordinators
- → Foursquare API for venue data

Methodology

- → Collect data from
- https://en.wikipedia.org/wiki/List of areas of London and https://en.wikipedia.org/wiki/Demography of London. Clean and process the data into a dataframe.
- → Foursquare will be used to locate all venues.
- → Due to the limitations in the number of calls for the Foursquare API some assumptions are made with corresponding data wrangling and cleansing.
- → Data will be visually assessed using graphing from Python libraries. . K-means clustering is used to find the best neighborhood to open an Asian restaurant.

Results

Clusters Map over London



Discussion Section

- → Pizza Places, Cafes and Chinese Restaurants are popular in these areas of London.
- → As for restaurants Chinese, French are very popular in Tower Hamlets.
- \rightarrow Asian restaurants is the 2nd most common venue in Newham. It is surprising to see that there are many restaurants serving for example Chinese or Indian food, cuisines that are Asian, but there are few restaurants that serving all these cuisines at the same place.
- → Based on the results of our analysis, I would state that Newham is the best location to open an Asian restaurant in London.

Conclusion

- → Answer to the business question: "Where in the city of London, should the investor open an Asian Restaurant?"
- → Best location to open an Asian restaurant is Newham.
- → The findings of this project will help the relevant investor better understand the advantages of different London neighborhoods/boroughs in terms of opening an Asian restaurant.

The end

