

Capstone Final Project:

Where should I open a Restaurant in London

Introduction/Business Problem

The city of London is the capital city of England and the United Kingdom and is a city of major business and financial centre. The city has over 500,000 employee from all over the country where it will be good to think of starting a business in this city.

The city is composed of busy people so it will be good if they could get a nice meal in order as it is a good way to relieve their stress.

In this report, we are going to answer the question "Which areas in London where a restaurant can be established". In order to answer the question, we will use data science methodology and clustering technique.

Methodology

We are going to use the following data to solve the business problem:

- Data about neighborhoods in City of London where can be found here (https://en.wikipedia.org/wiki/List_of_London_boroughs)
- Longitude, Latitude data from (http://cocl.us/Geospatial_data) where it will be merged to our boroughs.
- Lastly is the Foursquare service.

After creating a new data frame when all of the data are merged together, we will use the conditioned data for cluster analysis.

For the data, we used the City of London location which can be found here (https://en.wikipedia.org/wiki/List_of_London_boroughs). We combined the Longitude and Latitude data together with Location data in order for us to determine and find the nearby locations in our Foursquare. We used the Foursquare to find the most common venue in each neighborhood and we try to study the possible scenario based from the results.

Results/Discussion

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	Barnet	Grocery Store	Park	Convenience Store	Residential Building (Apartment / Condo)	Bus Stop	Hardware Store	Gym / Fitness Center	Metro Station	Furniture / Home Store	Fast Food Restaurant
1	Brent	Grocery Store	Park	Coffee Shop	Hotel	Pizza Place	Gym / Fitness Center	Bagel Shop	Middle Eastern Restaurant	Student Center	Sushi Restaurant
2	Camden	Zoo Exhibit	Coffee Shop	Beer Bar	Burger Joint	Music Venue	Theater	Pub	Greek Restaurant	Garden	Café
3	Ealing	Coffee Shop	Pub	Hotel	Park	Italian Restaurant	Bakery	Gym / Fitness Center	Café	Pizza Place	Thai Restaurant
4	Greenwich	Pub	Grocery Store	Café	Garden	Park	Coffee Shop	Burger Joint	Bar	Market	Bakery
5	Hackney	Café	Pub	Bakery	Coffee Shop	Brewery	Restaurant	Pizza Place	Cocktail Bar	Bookstore	Park
6	Hammersmith and Fulham	Pub	Coffee Shop	Indian Restaurant	Café	Italian Restaurant	Park	Japanese Restaurant	Thai Restaurant	Gastropub	French Restaurant
7	Islington	Pub	French Restaurant	Mediterranean Restaurant	Gastropub	Bakery	Boutique	Park	Ice Cream Shop	Music Venue	Burger Joint
8	Kensington and Chelsea	Italian Restaurant	Bakery	French Restaurant	Japanese Restaurant	English Restaurant	Café	Pizza Place	Plaza	Pub	Coffee Shop
9	Lambeth	Pub	Café	Park	Hotel	Gastropub	Coffee Shop	Italian Restaurant	Indian Restaurant	Gay Bar	Art Gallery
10	Levensham	Café	Pub	Restaurant	Supermarket	Fish & Chips Shop	Food Truck	Coffee Shop	Bakery	Gym	Clothing Store
11	Merton	Coffee Shop	Pub	Sushi Restaurant	Italian Restaurant	Café	Thai Restaurant	Bar	Bakery	Restaurant	Supermarket
12	Southwark	Pub	Coffee Shop	Italian Restaurant	Garden	Restaurant	Seafood Restaurant	Tapas Restaurant	Theater	Hotel	Ice Cream Shop
13	Waltham Forest	Pub	Coffee Shop	Café	Pizza Place	Restaurant	Sandwich Place	Supermarket	Bakery	Gym / Fitness Center	Fast Food Restaurant
14	Wandsworth	Pub	Grocery Store	Café	Clothing Store	Park	Coffee Shop	Indian Restaurant	Asian Restaurant	Supermarket	Breakfast Spot

The table above shows that the most common venue in the neighborhood is Pub which is a place where people gather in a community. We can see that only one Restaurant appeared in our top venue. The table also shows that Hammersmith and Fulham is the place where the restaurant is a common venue. We are going to choose a neighborhood where there is an opportunity in setting up a restaurant.

After conditioning our raw data and analyzing foursquare data, we have arrived in our conclusion in where to open up a restaurant.

Conclusion

Our study concludes that Barnet is the ideal neighborhood in opening a restaurant as it has a greater opportunity for us. Currently the restaurant appeared in the 10th place most common venue so it is a great time for us to start a restaurant business