BEST PLACES IN LONDON TO OPEN A RESTAURANT

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Applied Data Science Capstone

BACKGROUND

- London, England is the largest city and capital of the United Kingdom,
 which means it is a cultural and political epicenter.
- A large variety of people and cultures make up London. It has a rich history with many cultural landmarks and museums as well as many modern businesses, vendors, and opportunities for growth and expansion.
- Therefore, opening a new business in London can result in major profit, if all factors are considered well.

BUSINESS PROBLEM

- A businessperson wants to open a brand new restaurant in London. In order to do so, they have to consider many factors that describe London, including its demography, venues and corresponding locations, cuisines, potential competitors, the current status of the market, and many others.
- As of now, the most important decision the businessperson needs to make is regarding the location and the cuisine of the restaurant. As such, it is important to extract location information about London and its venues in order to consider the factors mentioned earlier.

INTEREST

- The businessperson would need to have this analysis performed in order to make preliminary decisions about the restaurant, such as finding an exact location and cuisine. These decisions are important in order to determine the restaurant's target audience (potential consumers), costs of supplies and ingredients, and the necessary staff.
- Other restaurateurs would definitely be interested in this information to see where in London would be the best places to open a restaurant or even to see how different factors would play a role in making these decisions.

DATA ACQUISITION AND CLEANING

- List of London boroughs and their longitude-latitude coordinates here.
- For my project, I decided to include the City of London as a borough, even though it's not indicated as such in the Wikipedia page. Therefore, the number of boroughs is 33, with 3 features scrapped from the page.
- Venue information was extracted using Foursquare API, with a total count of 1587 venues extracted, 572 of which I classified as "restaurants."

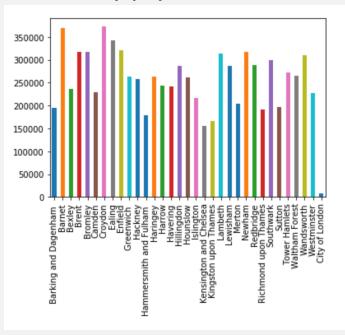
ANALYSIS

• I looked at the frequency tables of different types of restaurants to see the distribution of restaurant types across the boroughs.

<pre>In [19]: london_restaurants.groupby(['Borough','Venue Category']).size()</pre>		
Out[19]: Borough	Venue Category	
Barnet	Café	2
Bexley	Chinese Restaurant	1
	Fast Food Restaurant	2
	Italian Restaurant	2
	Portuguese Restaurant	1
	Sandwich Place	1
Brent	American Restaurant	3
	Asian Restaurant	1
	Brazilian Restaurant	1
	Burger Joint	1
	Café	1
	Fast Food Restaurant	2
	Indian Restaurant	2
	Italian Restaurant	3
	Latin American Restaurant	1
	Pizza Place	1
	Portuguese Restaurant	1
	Restaurant	1
	gamatatata plana	1

ANALYSIS

• I also plotted the populations of each borough, since population would definitely play a role in how many people would come to a restaurant.



- The plot indicates that Croydon, Barnet, and Ealing are the three most populous boroughs of London.
- Because of this, I narrowed down possible boroughs in which the restaurant can be opened to those three boroughs.

CONCLUSION

- The restaurants in Croydon all have unique cuisines, and there is a moderate number of them compared to those of other regions. Opening a restaurant in Croydon with a unique cuisine that would not compete with the restaurants already there, but is possibly successful in other boroughs, may be a good approach.
- For example, restaurants with category "Sandwich Place" seem relatively common in other boroughs, but there is none in the dataset for Croydon.
- Therefore, I would suggest opening a sandwich restaurant in Croydon, since that type of restaurant would be unique to the area and contribute greatly to the variety of its restaurant culture.