Exploring Food Venues in London

IBM Data Science Project

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Introduction

London is the most populous city in the UK and its home of people coming from all around the world (it's the second largest immigration city in the world after NY). Being home of such a variety of culture it led to the developing of a huge variety of traditional restaurant bringing the food culture of different countries in the city.

This project wants to segment the boroughs and neighbourhoods in London into different clusters and examine the distribution of the various ethnic restaurant around the city (it might also be a representation of how the different nationality are spread around the city)

To do so we will leverage on Foursquare API and k-means clustering algorithm.

Data

London data

This London neighbourhood was created to have a starting point with the coordinates for London neighbourhoods. This is a simple .csv file easy to load with pandas library.

	Neighborhood	Borough	Post Town	Postcode	Latitude	Longitude
0	Abbey Wood	Bexley, Greenwich	LONDON	SE2	51.49245	0.12127
1	Acton	Hammersmith and Fulham	LONDON	W3	51.51324	-0.26746
2	Aldgate	City	LONDON	EC3	51.51200	-0.08058
3	Aldwych	Westminster	LONDON	WC2	51.51651	-0.11968
4	Anerley	Bromley	LONDON	SE20	51.41009	-0.05683

Foursquare API

The Foursquare Places API provides location-based data with diverse information about venues, users, photos, and check-ins. The API supports real time access to places, Snap-to-Place that assigns users to specific locations, and Geo-tag.

There are many information available in the website but in order to focus the search on food categories we need to look through Foursquare website to find category codes list that are used for each kind of venue (https://developer.foursquare.com/docs/build-with-foursquare/categories/). For this analysis is needed the code for food venue:

Food
4d4b7105d754a06374d81259