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| QUANTITATIVE similarity Analysis of LONDON and PARIS Neighborhoods  Are you moving from London (Paris) to Paris (London)? Let’s see which neighborhood of your future city will suit the most! | Marc Gou  This report has been drafted in the context of the course: IBM – Applied Data Science Capstone |

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# Introduction

London and Paris are without doubt the two most economically powerful cities in Europe. Both of them are home to many of British and French national flagship companies, they have also attracted countless foreign companies to establish their national/European base.

They are also two of the most visited cities in the world. The large number of opportunities combined to their offers in the domain of art culture, sport, education, social system… have attracted many of the talents to settle up. Especially, a lot of Parisian are living in London and many Londoners are considering to move to Paris.

In fact, London is considered as being the fifth French speaking city in Europe, has been for long a primary destination for Parisian people. On the other hand, Paris is one of the city with the highest number of British citizens, and with the actual political context, we may reasonably expect even more London-based people moving to Paris.

The goal of this project is to provide insights for individuals or families which are moving from one of those cities to the other, which district(s) would fit them the most by using a quantitative approach and real-world location and venue data.

As a first step, we will cluster the different district of those two cities based on five criteria’s: Art&Culture, Sport, Family facilities, Shopping possibilities and Restoration offers. And in the second step, we will classify all the districts of those cities into defined groups, and also given any district of one city, find the the most similar district to that one in the other city.

# Data

For this project we will mainly use the Foursquare location data. Foursquare is a technology company providing mobile search-and-discovery services. Foursquare features also a developer API that lets third-party applications make use of Foursquare's location data. In March 2013, the Foursquare API had 40,000 registered developers. The API powers searches third-party apps, including Evernote, Uber, Flickr and Jawbone (*source: Wikipedia*).

In order to get the neighborhood data of both cities, we are using the information from Wikipedia:

1. London: <https://en.wikipedia.org/wiki/List_of_areas_of_London> (only neighborhoods with Post town = “London” are included in the scope of this project)
2. Paris: <https://fr.wikipedia.org/wiki/Liste_des_quartiers_administratifs_de_Paris>

These geographical coordinates of the neighborhoods (called « areas » for London and « quartiers » for Paris) listed above are located via Nominatim (from geopy), which is a tool to locate addresses, neighborhoods and interest points by using the data of Openstreetmap.

# Methodology

# Results

# Discussion

# Conclusion

# References