Capstone Project
Neighbourhoods in Paris

1. Introduction

1.1 Background

Moving to a new multicultural city is a complex process that involves many stressful tasks. One of them is looking for a new place where to live. On top of the challenge of finding a new place to call home, it is very important to find the neighbourhood that matches its own life-style and that has the type facilities that matter the most. People that have lived in multicultural cities know how much each neighbourhood different from another.

1.2 Problem

When moving to a new city it is not obvious to have a clear picture of each neighbourhood and to have the time to explore them before renting a new place. Finding the best-fit neighbourhood in a new city became sometimes more challenging than finds the perfect house. This task is also challenging for the rental agency, which lacks the information that matters to suggest to a new tenant a neighbourhood based on his life-style and preferences.

For this study, I will focus on the city of Paris. I would like to better understand and categorise the 20 arrondissements (neighbourhoods) of Paris based on the venues present in each of them.

1.3 Interest

This analysis will help people moving to Paris to find the best neighbourhood to live based on their lifestyle. This analysis will also help the rental agencies to understand better the main characterises of each neighbourhood and how it could suits each different life-style.

The rental agency would find beneficial to have an accurate analysis of each area as this will increase to chance to find the perfect neighbourhood for a new tenant as this will increase the lasting time of a tenant in a property and customer satisfaction. The new mover will find beneficial to have a quick analysis of each arrondissement, in order to find quicker the areas that most suit them.

The goal of this project is to analysis and describe each arrondissement, cluster arrondissements that are similar by venues type, and associate each area/cluster with a certain lifestyle (eg. Family, People that love going out, quiet area, residential area) in order to help new tenants to find the perfect neighbourhood in Paris.

2 Data Description

I will use the neighbourhood's data in the city of Paris taken from wikipedia.

I will explore and cluster them based on the type of venues present in each area. I will find the most popular venues from Foursquare API.

• Arrondissement data from Wikipedia [https://en.wikipedia.org/wiki/Arrondissements_of_Paris]

• Foursquare API, to get the most common venues for each arrondissement of Paris.