Opening shopping mall in Paris

1. Introduction

For many shoppers, visiting shopping malls is a great way to relax and enjoy themselves during weekends and holidays. Property developers are also taking advantage of this trend to build more shopping malls to cater to the demand. As a result, there are many shopping malls in the city of Paris and many more are being built. Opening shopping malls allow property developers to earn consistent rental income. As with any business decision, opening a new shopping mall requires serious consideration and is a lot more complicated than it seems. Particularly, the location of the shopping mall is one of the most important decisions that will determine whether the mall will be a success or a failure.

2. Business Problem

The objective of this project is to analyze and select the best locations in the city of Paris, France, to open a new shopping mall. This project is mainly focused on geospatial analysis of the Paris City to understand which would be the best place to open a new mall. Using data science methodology and machine learning techniques like clustering, this project aims to provide solutions to answer the business question: In the city of Paris, if a property developer is looking to open a new shopping mall, where would you recommend that they open it?

3. Sources of Data and methods to extract the Data.

This **Wikipedia page** is a list of neighborhoods in Paris, with 29 neighborhoods. I have used web scraping techniques to extract the data from the Wikipedia page, with the help of Python requests and beautiful soup packages. Then we can get the latitude and longitude coordinates of the neighborhoods using Python Geocoder package. After that, I have used the Foursquare API to get the venue data for those neighborhoods. Foursquare API will provide many categories of the venue data, and we are particularly interested in the Shopping Mall category to help us solve the business problem. This is a project that will make use of many data science skills, from web scraping (Wikipedia), working with API (Foursquare), data cleaning, data wrangling, to machine learning (K-means clustering) and map visualization (Folium).