Capstone Project - The Battle of Neighborhoods

Opening a new restaurant in London, UK

By,

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1. Introduction

1.1 Background

During this pandemic time due to COVID-19, restaurants remains one of the most important essential services. Although, dine-in facility has been currently suspended, the takeout is still active. Despite this situation, one of my friends has decided to open a new restaurant as he believes that eventually business will pick up once this pandemic is over. He decides to open a restaurant based on some theme. Nowadays, restaurants with some themes attracts lot of people. It is one of the places where everyone would like to have some get together. He believes that his restaurant will be unique. Particularly, the location of the restaurant is one of the crucial decisions that will determine whether the restaurant will be a success or failure.

1.2 Business Problem

The main objective of this capstone project is to ***find the most suitable location for one of my friends to open a new themed restaurant in the London city***. By following data science methodology and machine learning algorithms such as Clustering, this project aims to recommend a suitable location to him to open up a themed restaurant in London based on K-Means Clustering.

1.3 Target Audience

One of my friends who wants to open a restaurant in London city

2. Data

2.1 Description of Data

To solve this problem, data source plays a huge role. After doing some research work, I found a data that I thought will be suitable to solve this problem. This data has been taken from the "***https://data.world/makeovermonday/2018w51***" which contains the information of the different borough's in London. This data contains all the boroughs from the London city from which the latitude and

longitude data can be fetched using "***Geocoder***" package. After this, all the venues around this neighborhood can be fetched using "***Foursquare API***".

By doing the exploratory analysis on this data and transforming the data to the desired format in the preprocessing and data wrangling stages, this business problem can be solved by one of the machine learning algorithms. In our case, we are going to use "***K-Means Clustering***"