IBM Applied Data Science Capstone Project

Opening a New Restaurant in Mumbai, India

Introduction

For many people, dining at a nice restaurant is a great way to relax and enjoy themselves during weekends and holidays. They can dine at restaurants, do grocery shopping, shop at the various fashion outlets, watch movies and perform many more activities. For restaurant owners, the central location and the large crowd at a junction provides a great oppurtunity to make good business. Property developers are also taking advantage of this trend to build more restaurants to cater to the demand. As a result, there are many restaurants in the city of Mumbai and many more are being built. Opening different types of cusines allows people to earn consistent income. Of course, as with any business decision, opening a new restaurant requires serious consideration and is a lot more complicated than it seems. Particularly, the location of the restaurant is one of the most important decisions that will determine whether the restaurant will be a success or a failure.

Business Problem

The objective of this capstone project is to analyse and select the best locations in the city of Mumbai, India to open a new restaurant. 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 Mumbai, India, if a person is looking to open a new restaurant, where would you recommend that they open it?

Data Description

For this project we will be needing information of already established restaurants in different neighbourhoods in Mumbai, India. The list of different neighbourhoods in Mumbai can be obtained by performing web scraping on a html page, like this one "https://mumbai7.com/postal-codes-in-mumbai/", which contains all the names of neighbourhoods in Mumbai in a tabular format. Then we can get the latitude and longitude of each neighbourhood using the geocoders library in python. And finally with the help of Foursquare we can get all the venues of different categories near each neighbourhood.