IBM APPLIED DATA SCIENCE CAPSTONE

APPROPRIATE LOCATIONS TO OPEN A NEW SHOPPING MALL IN MUMBAI, INDIA

INTRODUCTION

Shopping malls are a one-stop destination, where shoppers can do various activities, ranging from shopping, eating, gaming and watching movies. It is a great place to visit, and is always buzzing, especially during holidays. For, property developers, it is a great way to make profit out of catering to the demands of the public. However, a lot of thought and consideration goes into opening a shopping mall. One of the most important factors to be considered, is the location.

BUSSINESS PROBLEM

The aim of this project is to help property developers in choosing the ideal location for opening a shopping mall, in Mumbai, India, using data science methodology and machine learning techniques like clustering.

TARGET AUDIENCE

This project aims to help property developers in opening new shopping malls around Mumbai, India. It will help them choose ideal locations minimizing competition and maximizing profit.

DATA

- List of neighborhoods in Mumbai, India
- Latitude and longitude coordinates of those neighborhoods, in order to plot the map
- Data related to shopping malls, in order to perform clustering on the neighborhoods

First, we extract the neighborhoods in Mumbai, using web scraping, from the page: https://en.wikipedia.org/wiki/Category:Suburbs_of_Mumbai .

Then, we use the Geocoder library to extract the coordinates of each neighborhood.

Then, we use the Foursquare API to get the venue data for each of the neighborhoods. It provides us with a lot of venues, but we are interested in Shopping malls only, to solve our problem.

We also make use of machine learning techniques, such as K means clustering and map visualization using Folium.