IBM Data Science

Capstone Project

By: Ismail Raslan

Where to Open a Shopping Mall in Riyadh

Introduction

Going to shopping malls is a great way to relax and enjoy oneself during weekends and holidays. There is a great deal of activities to be done including eating, shopping, and watching movies. For retailers, the central location and the large crowd at the shopping malls provides a great distribution channel to market their products and services. For shops and sellers, it is a great environment for their business to flourish due to the high-density population that visits. Opening a shopping mall requires a tremendous amount of consideration and this report and project exist to even slightly alleviate the tedious research that must be done. The project is done for the city of Riyadh, Saudi Arabia.

Problem

The goal of the project is to analyse possible locations in Riyadh to open a new shopping mall. Using data science and machine learning techniques such as gathering & wrangling the data and clustering respectively, this project aims to provide solutions to answer the question of where to open a shopping mall in Riyadh, Saudi Arabia.

Target Audience

This project is particularly aimed at investors looking to open new shopping malls in the capital city of Saudi Arabia. This project is useful nowadays as the country is welcoming more and more tourists by the day, and shopping malls are always a go-to location when visiting a new city.

Data Required

To solve the problem, we will need the following data:

- List of neighbourhoods in Riyadh.

- Latitude & longitude coordinates of those neighbourhoods. Needed to get data of nearby venues.

- Venue data related to project.

Sources of data and methods to extract them

- Wikipedia provides a list of populated areas:

    o List available through:

        ▪ https://en.wikipedia.org/wiki/Category:Populated_places_in_Riyadh_Province

    o Web scraping techniques are used to extract and store the data from the webpage.

- Foursquare will be used to get the venue data for those neighbourhoods.

    o Particularly venues related to shopping malls (restaurants, theatres, etc…).

    o Done through Foursquare API.