

Introduction

Malls can use big data, machine learning and AI to derive meaningful insights to minimize operational costs, build better customer engagement, explore new avenues for revenue, enable tenants to boost productivity, and more

Many companies are digging in and finding innovative ways to use predictive analytics to increase profitability at some of the biggest shopping centers in the world. Location analytics firms working in the retail space are providing mall owners with unprecedented information about consumer movements and behaviors to drive decisions and build marketing strategies.

Business Problem

There are many shopping malls in the city of Tehran, Iran and many more are being built. The location of shopping mall is one of the most significant factor that will determine whether the mall will be successful or not.

The purpose of this project is to analyze Tehran location-wise and make decision regarding the best place to open a new shopping mall. Using Clustering Machine learning method, we would like to answer a big question: Where would be the place to open a shopping mall in Tehran to increase the chance of business success?

Audience of this Project

Investors, retailers and property developers are the main audience of this project. They care about this project since they can increase their profit by finding the best place to open a mall

Data

- 1) List of neighborhoods in Tehran is the main data that we need. Wikipedia page has list of 71 neighborhoods in Tehran. We extract the data from the Wikipedia page by using Requests and BeautifulSoup Packages.
- 2) In order to get the venue data and plot the map, the Latitude and longitude coordinates are required. FourSquare API helps us to get access to this data. FourSquare API provides different categories of the venue data and we use shopping mall category to help us solve the business problem. Data cleaning, data wrangling, K-means clustering and map visualization with the help of Folium are other steps that required for this project.