

Coursera Capstone Project: The Battle of Neighborhoods (Week 1)

The best place to open a shopping mall in Casablanca, Morocco

Week 4 Part 1:

Introduction:

Nowadays there are many ways to go shopping, however locating one that matches a modern way of living can be complicated. We can go shopping in towns, markets as well as on the net, but the most practical is the shopping mall. The mall culture has become a big business, as they have become multi-story structures that house a large number of shops selling various products and services. Shoppers prefer shopping malls to stand-alone shops for various reasons. They can have their own parking facility, compare between a large varieties of products from different producers before making purchases, enjoy meals at food courts with a wide variety of cuisine, or see a movie at cinemas in shopping centers. All these features make shopping a fun-filled and satisfying experience.

Since shopping centers are the most sought-after shopping destinations, it is beneficial for a retail store owners to rent shop space in a mall because they are usually located in prime locations which are easily accessible, It enables him also to build a clientele by attracting clients of competitors who have shops in the mall, and to focus on his business without having to direct time and efforts towards the maintenance of the shop. Property developers and investors are also taking advantage of it by investing and building more shopping centers to cater to the demand. With so many benefits of shopping malls to shoppers as well as businessmen we can conclude that shopping malls will only rise in popularity with time and that's why there are more and more shopping malls in the big city of Casablanca.

There are many points to consider before opening a shopping center as with any business decision, and one of the most important decisions is the location of the shopping center which will determine its success or failure

Business Problem:

The objective of this capstone project is to analyze and determine the best place to open a new shopping mall in the city of Casablanca, Morocco. Using Data Science methodology and tools, It will give an answer to the business question: In the city of Casablanca, Morocco, if a property developer is looking to open a shopping mall, where would I recommend that they open it?

Week 4 Part 2:

Data:

To solve the problem, I'll need the following data:

- Neighborhoods in Casablanca: This defines the scope of this project which is limited to the city of Casablanca.
- Latitude and longitude of those neighborhoods: This is useful to get the venue data and build map.
- Venue data: This is useful to perform clustering on the neighborhoods, especially data related to malls.

Data sources:

This Wikipedia page https://fr.wikipedia.org/wiki/Cat%C3%A9gorie:Quartier_de_Casablanca contains a list of neighborhood in Casablanca. I'll use web scraping techniques to extract data from it using BeautifulSoup and Requests packages of Python. Then, I'll use Geocoder Python package to get the geographical coordinates of the neighborhoods (latitude and longitude).

Finally, I'll use the Foursquare API to get the venue data of those neighborhoods, particularly the Shopping mall category to solve the business problem.