

IBM APPLIED DATA SCIENCE CAPSTONE

BEST LOCATIONS TO OPEN A NEW SHOPPING MALL IN ABUJA, NIGERIA BY PATRICK MOSES

INTRODUCTION

A **shopping mall** is a modern term for a form of **shopping precinct** or **shopping center** in which one or more buildings form a complex of shops with interconnecting walkways, usually indoors.

Shopping mall is a great place to visit, and is always busy, especially during holidays and when located in strategic location. You need to consider factors that impact your marketability and long-term profitability while planning to startup a mall.

BUSSINESS PROBLEM

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

TARGET AUDIENCE

The target audience for this project is property developers as it aid them in opening new shopping malls around Abuja, Nigeria. It will help them choose best location that will minimize competition and maximizing profit.

DATA

1. List of neighborhoods in Abuja, Nigeria
2. Latitude and longitude coordinates of those neighborhoods, in order to plot the map
3. Data related to shopping malls, in order to perform clustering on the neighborhoods

First, we extract the neighborhoods in Abuja, using web scraping, Then, we use the Geocoder library to extract the coordinates of each neighborhood.

When then, 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.