IBM DATA SCIENCE PROFESSIONAL CERTIFICATE

APPLIED DATA SCIENCE CAPSTONE PROJECT

Opening a New Shopping Mall in Bangalore, India

By: -

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Introduction

Shopping malls are the place the where people tend to go very frequently in a city like Bangalore. Mostly Working individuals will go to malls during weekends and holidays; So, visiting shopping malls has become a great way to get relaxed and enjoy themselves.

Shopping malls are like a one-stop destination for all types of shoppers, for example a customer can do Grocery shopping, watch movies and shows, can dine at a restaurant, shop at various fashion outlets and can perform many more activities.

When it comes to retailers, the Central Location which attracts lots of customers at malls provides a great distribution channel to market their product and services. Property Developers and Real Estate sectors are also taking advantage of this trend to build more shopping malls.

As a result, there are many shopping malls in the city of Bangalore any many more are being built.

Opening a new shopping mall in a city like Bangalore is really a Challenging task, it requires serious considerations and its lot more complicated than it seems. Particularly, finding a good location for the shopping mall is the one of the most important decisions that will determine whether the mall will be a success or failure.

This project will be particularly useful to property developers and investors who are looking to open or invest in new shopping mall in the Silicon Valley of India i.e., Bangalore.

Business Problem

The main objective of this capstone project is to analyze and select the best locations in the city of Bangalore, India to open a new shopping mall. This project aims to provide solutions to answer the Business Question – In Bangalore, if a property developer is looking to open a new shopping mall, where would you recommend them to open?

Description of the Data

To solve our business problem, we need the following data:

- Bangalore Pincode with coordinates.
    - Data source:
      https://www.kaggle.com/hegdetapan/bangaloreareaspincodewithlatitudelongitude
    - Description: Contains a list of pin codes, area names, and latitude and longitude coordinates.
- Shopping Malls in Neighborhoods of Bangalore.
    - Data source: Foursquare API
    - Description: By using this API we will get all the venues in each postal code. We can get filter these venues to get data related to shopping malls. We will use this data to perform clustering on the neighborhoods.

Using this data will allow exploration and examination to answer the questions. This is a project that will make use of many data science skills, from Data Collection, working with Foursquare (API), Data cleaning, Data wrangling and map visualization using Folium and to machine learning (K-means clustering).