

# IBM APPLIED DATA SCIENCE CAPSTONE COURSE BY COURSERA

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Start your shopping mall in Kochi,  
India

*Project Report - 2 Jan 2021*

## **1. Introduction**

A storm of global trends are coming together at the same time to cause malls to change the role they play in people's lives. The main reason shopping malls are so popular is that they are very convenient. Most of them include clothing stores, a food court, movie theatres, arcade rooms, and much more. Not every shopping mall is the same, but they all basically have the same things. Shopping for basic needs is an old trend, but it is changing rapidly and shopping malls, these days, are primarily recreational places for many. This new trend has increased in the past years. For instance, many children prefer to meet up in a shopping mall, watch a movie and later have snacks in the food court. Besides, with the decline of open places and parks, many families gather at a large shopping mall to enjoy their holidays.

## **2. Business Problem**

Starting a mini shopping mall can be quite rewarding and also demanding because it needs proper planning and complete dedication. Today in cities, the mall structure is quite popular and most of the people love to purchase things from mall. This is not just because of the ambience but also the facility. All the things that you need in your daily life, starting from home product to luxury items, everything is available under one roof. This project aims to tackle the problem of finding a suitable location to build a new shopping mall in Kochi. It can be extended to any place other than Kochi and can also be used to find suitable locations for buildings other than shopping malls like gyms, hotels etc.

Footfall is very important for success in the mall business. We should get in touch with a franchise having good customer base. Large number of people in rural area has access to internet and they have learned to buy things that they need from shopping sites available online. Thus before venturing into the business, we have to keep in mind that we not only have to deal with the competition in the retail market but also plan a unique strategy so that customers are attracted towards our mall and an increase in footfall is seen.

Things to consider while starting a shopping mall:

Anybody who has proper knowledge about running a store can open a mini shopping mall. Here are a few things that you would need to pay attention to before venturing into the business.

1. Decide on the niche you would like to target. Usually if your target is teenagers and women below the age of 40 then make sure that the mall you open looks trendy.
2. Normally, when a mall is opened people in the locality just come in with a motive to spend time and see what the stores have on shelf but if a particular franchise has

strong customer base then the foot traffic will naturally increase and you will find people dropping in from different area as well.

3. Location plays a vital role in the business. Look for an area where there are no competitors around. If there are more malls in the locality you are planning to set your business, then competition will be high and profit will be less.

This project will take care of the making an informed decision about the location.

### **3. Data**

To complete this project, we need the following:

1. Since the scope of this project is confined to the district of Kochi in Kerala, India, we need the list of all the neighbourhoods of Kochi.

The neighbourhood information will be scraped from the Wikipedia webpage [https://en.wikipedia.org/wiki/Category:Suburbs\\_of\\_Kochi](https://en.wikipedia.org/wiki/Category:Suburbs_of_Kochi).

2. Latitude and longitude coordinates of those neighbourhoods to plot the map and to get venue details.

Geocoder package in python is used to get the coordinates of the neighbourhoods.

3. Venue data to perform clustering

Foursquare API will be exploited to get the venue details for all the neighbourhoods.

These steps will explore many data science skills including web scraping, K-means clustering, map visualization using Folium, working with Foursquare API, data cleaning and data wrangling.