Applied Data Science Capstone Project

**Introduction:**

This is the Capstone project for IBM Data Science Professional Certificate. The reason behind to choose this use case, myself and friend are planning to start a Grocery Store business , so I thought of check my skills which has been learned so far. I live in Sacramento, California. In my place there are not enough Grocery Stores. Therefore it would be a great opportunity for an entrepreneur like my friend. With this in mind, finding the location to open such a grocery store is one of the most important decisions, hence I am designing this project to help him or other entrepreneurs to find the most suitable location.

**Business Problem:**

The objective of this capstone project is to find the most suitable location for the entrepreneur to open a new Grocery store in Sacramento, California. By using data science methods and tools along with

machine learning algorithms such as clustering, this project aims to provide solutions to answer the business question :

In Sacramento, if an entrepreneur wants to open an Grocery store, where should they consider opening it?

**TARGET AUDIENCE:**

The entrepreneur who wants to find the best location to open Grocery store or similar businesses.

**DATA:**

To solve this problem, we will need below data:

* List of neighborhoods in Sacramento, California
* Latitude and Longitude of these neighborhoods
* Venue data related to Grocery store. This will help us find the neighborhoods that are more suitable to open a Grocery store.

**EXTRACTING THE DATA:**

* Extracted neighborhood details from City of Sacramento website
* Getting Latitude and Longitude data of these neighborhoods
* Using Foursquare API to get venue data related to these neighborhoods