

IBM DATA SCIENCE CAPSTONE PROJECT

*OPENING NEW AUTOMOBILE WORKSHOP
IN ATLANTA, GA, USA*

By:

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INTRODUCTION:

For many vehicle owners, servicing the vehicle periodically and keeping it in good condition is a headache. Since the showroom services are costlier, people are in search of local mechanic, who will do the work in much cheaper way. So, if you are a good mechanic who got lot of experience in that field and can do in an affordable way, are much needed in the society. Establishing the workshop is not an easy go job, you have to do some exploration work and analysis. The location where the workshop located plays a major and the location partially defines the success of the workshop.

BUSINESS PROBLEM:

The main objective of the project is to analyse the problem and select the best location for the Automobile workshop in Atlanta. Using Data Science methodology and machine learning techniques like ‘Clustering’, the project aims to solve the business problem which is, *‘If someone is a Mechanic who wants to establish his own workshop, where would you recommend him to open’*

Business or stake holders who are targeted by this project:

This project approach was not only applicable for someone who wants to open new workshop, it can be used by anyone who wants to open their shop like restaurants, service centres, ...

Data:

Types of Data needed to solve this problem:

- The most important data are the location data of every workshop all over the city like latitude and longitude data
- Another data which helps us to find the better location is the customer rating of those shops, which helps to find out the good and bad service.

Sources of data:

Foursquare: The Foursquare Places API provides location-based experiences with diverse information about venues, users, photos, and check-ins. The API supports real time access to places, Snap-to-Place that assigns users to specific locations, and Geo-tag. Additionally, Foursquare allows developers to build audience segments for analysis and measurement

'geopy.geocoders' python library: This library provides the latitude and longitude data, by just giving it the name of location.