

# Project

## Vintage Cars Segmentation

### Context

The shifting market conditions, globalization, cost pressure, and volatility are leading to a change in the automobile market landscape. The emergence of data, in conjunction with machine learning in automobile companies, has paved a way that is helping bring operational and business transformations.

The automobile market is vast and diverse, with numerous vehicle categories being manufactured and sold with varying configurations of attributes such as displacement, horsepower, and acceleration. We aim to find combinations of these features that can clearly distinguish certain groups of automobiles from others through this analysis, as this will inform other downstream processes for any organization aiming to sell each group of vehicles to a slightly different target audience.

You are a Data Scientist at SecondLife which is a leading used car dealership with numerous outlets across the US. Recently, they have started shifting their focus to vintage cars and have been diligently collecting data about all the vintage cars they have sold over the years. The Director of Operations at SecondLife wants to leverage the data to extract insights about the cars and find different groups of vintage cars to target the audience more efficiently.

### Objective

The objective of this problem is to **explore the data and extract meaningful insights**.

### Data Dictionary

There are 8 variables in the data:

- mpg: miles per gallon
- cyl: number of cylinders
- disp: engine displacement (cu. inches) or engine size
- hp: horsepower
- wt: vehicle weight (lbs.)
- acc: time taken to accelerate from 0 to 60 mph (sec.)
- yr: model year
- car name: car model name