

# Regression Project

Sebastián ZL

2022-04-12

## Executive summary

This project aims to explore some features that affect fuel consumption in miles per gallon (MPG) based on a collection of cars (mtcars - Motor Trend Car Road Tests) data set. In particular we want answer two questions: - Is an automatic or manual transmission better for MPG? - Quantifying how different is the MPG between automatic and manual transmissions? ## Exploratory data analysis

```
## 'data.frame': 32 obs. of 11 variables:  
## $ mpg : num 21 21 22.8 21.4 18.7 18.1 14.3 24.4 22.8 19.2 ...  
## $ cyl : num 6 6 4 6 8 6 8 4 4 6 ...  
## $ disp: num 160 160 108 258 360 ...  
## $ hp : num 110 110 93 110 175 105 245 62 95 123 ...  
## $ drat: num 3.9 3.9 3.85 3.08 3.15 2.76 3.21 3.69 3.92 3.92 ...  
## $ wt : num 2.62 2.88 2.32 3.21 3.44 ...  
## $ qsec: num 16.5 17 18.6 19.4 17 ...  
## $ vs : num 0 0 1 1 0 1 0 1 1 1 ...  
## $ am : num 1 1 1 0 0 0 0 0 0 0 ...  
## $ gear: num 4 4 4 3 3 3 4 4 4 4 ...  
## $ carb: num 4 4 1 1 2 1 4 2 2 4 ...
```

