

## Table of Contents

1. Objective
2. Getting the Data
3. Import the Libraries
4. Read the Data
5. Inspecting and Cleaning the Data
  - Check for missing data
  - Check for non-numeric values in numerical columns
  - Check for Duplicates
6. Exploratory Data Analysis
  - 6.1 Are there any Outliers? (Univariate Analysis)
    - Boxplot of Avg Profit/Loss
  - 6.2 What about the Distribution?
    - Histograms
      - Distribution of Avg Profit/Loss (IQR method)
      - Distribution of Avg Fuel Efficiency (the standard deviation ( $\sigma$ ) rule)
8. Correlation Analysis (Bivariate Analysis)
  - Correlation Matrix for Numeric Features (Pearson method)
  - Heatmap of the correlation matrix
  - Relationship between Avg Profit/Loss and Avg Miles
  - Relationship between Avg Profit/Loss and Avg Fuel Efficiency
  - Criticisms of the Plot
  - Alternative Visualizations
9. Other Correlation Methods
  - Kendall Method
  - Spearman Method
  - Key Similarities Across All Methods
  - Notable Differences
  - Analytical Implications
  - How to Choose the Best Correlation Method
10. Unstacking Variables