**Exercise 1**

1. Load the 'mpg.csv' dataset and generate a summary of basic statistics for the 'horsepower' column.
2. Calculate the mean and standard deviation of 'mpg' for each 'origin'.
3. Test if the average 'mpg' is significantly different from 25.
4. Perform an independent samples t-test to compare the difference in means between the mileage of cars from the USA versus Japan
5. Visualize the results of # 4 using a boxplot. Label the p-value on the plot.

**Exercise 2**

1. Perform a one-way ANOVA to test differences in mpg across origin.
2. Conduct a chi-square test of independence between cylinders and origin.
3. Perform a Chi-square test to determine if there is a significant association between 'manufacturer' and 'drv' (drive type). You will need to create a contingency table first.
4. Conduct pairwise Pearson correlation tests among displacement, horsepower, and weight.
5. Conduct pairwise Pearson correlation tests among displacement, horsepower, and weight in the mpg dataset.