More ggplotting
Intro R seminar

The Assignment

02 February 2020

This assignment requires the `mtcars` dataset, a default dataset available in `R`.

It also requires use of several functions that are not available in base `R`. Load the required package(s).

Data structure

Do what needs to be done to ensure various variables in `mtcars` are stored as the correct class. After you've fixed the classes, show the structure of the modified dataset.

Boxplot

Using `ggplot`, create a boxplot that shows how fuel economy varies with number of cylinders.

Some of these groups have wide distributions. Others have outliers. Re-plot the boxplot with data overlayed by group. What additional information do the data points give us about outliers that the original boxplot doesn't?

Means and error bars

Ultimately we want to show the relationship between fuel economy, number of cylinders, and transmission type. But the stylesheet for the *Journal of Default Datasets* says they aren't keen on boxplots, so we need to devise a graph of means and error bars. This requires us to calculate summary statistics before we can make the plot. Show the summary statistics you calculate.

Now use `ggplot` to make a nice-looking graph of these data. *By "nice-looking" we mean tend to size and spacing of the data points, error bars, and text, and meaningful axis labels.*