Chapter 02: First steps

Stan Piotrowski

September 13 2021

Contents

0.1 Setup

This chapter focuses on getting familiar with the basic recipes to create graphics using ggplot2.

```
# Load libraries
library(tidyverse)
```

0.2 Fuel economy data exercises

1) *List five functions that you could use to get more information about the* `mpg` *dataset.*

If you wanted more general information about the `mpg` dataset (e.g., descriptions of the underlying data, or where to find more detailed information or the source), you could use `?`, `??`, or `help()`. If you wanted to get a quick summary of the data and see the distribution of each variable, you could use the `summary()` function.

There are a few additional functions that you could use, some of which are described here. There is no such vignette for the `mpg` dataset, but `browseVignettes()` or `vignette()` can be used to find tutorials for selected packages. Additionally, if you really don't know the name of the package you are interested in and don't want to consult Google, you could use the `apropos()` function to identify the object or function in the R environment using regular expression pattern matching.

2) *How can you find out what other datasets are included with ggplot2?*

3) *Apart from the US, most countries use fuel consumption (fuel consumed over fixed distance) rather than fuel economy (distance traveled with a fixed amount of fuel). How could you convert the* `cty` *and* `hwy` *into the European standard of l/100km?*

4) *Which manufacturer has the most models in this dataset? Which model has the most variations? Does your answer change if you remove the redundant specification of drive train (e.g., "pathfinder 4wd", "a4 quattro") from the model name?*

0.3 Aesthetic attributes exercises

0.4 Faceting exercises

0.5 Plot geoms exercises