Chapter 2 Exercises

30 June, 2018

## Getting started with ggplot2

## # A tibble: 234 x 11  
## manufacturer model displ year cyl trans drv cty hwy fl class  
## <chr> <chr> <dbl> <int> <int> <chr> <chr> <int> <int> <chr> <chr>  
## 1 audi a4 1.8 1999 4 auto~ f 18 29 p comp~  
## 2 audi a4 1.8 1999 4 manu~ f 21 29 p comp~  
## 3 audi a4 2 2008 4 manu~ f 20 31 p comp~  
## 4 audi a4 2 2008 4 auto~ f 21 30 p comp~  
## 5 audi a4 2.8 1999 6 auto~ f 16 26 p comp~  
## 6 audi a4 2.8 1999 6 manu~ f 18 26 p comp~  
## # ... with 228 more rows

### Exercises 2.2.1

**Question 1**:

List five functions that you could use to get more information about the mpg data set.

**Answer**:

Some useful functions are:

* summary: print some summary statistics for each variable
* View: to see the whole data set in a nice spread-sheet like fashion
* str : get info on the structure of the mpg object
* dplyr::glimps: similar to str but much tidier
* class: to get its class

glimpse(mpg)

## Observations: 234  
## Variables: 11  
## $ manufacturer <chr> "audi", "audi", "audi", "audi", "audi", "audi", "...  
## $ model <chr> "a4", "a4", "a4", "a4", "a4", "a4", "a4", "a4 qua...  
## $ displ <dbl> 1.8, 1.8, 2.0, 2.0, 2.8, 2.8, 3.1, 1.8, 1.8, 2.0,...  
## $ year <int> 1999, 1999, 2008, 2008, 1999, 1999, 2008, 1999, 1...  
## $ cyl <int> 4, 4, 4, 4, 6, 6, 6, 4, 4, 4, 4, 6, 6, 6, 6, 6, 6...  
## $ trans <chr> "auto(l5)", "manual(m5)", "manual(m6)", "auto(av)...  
## $ drv <chr> "f", "f", "f", "f", "f", "f", "f", "4", "4", "4",...  
## $ cty <int> 18, 21, 20, 21, 16, 18, 18, 18, 16, 20, 19, 15, 1...  
## $ hwy <int> 29, 29, 31, 30, 26, 26, 27, 26, 25, 28, 27, 25, 2...  
## $ fl <chr> "p", "p", "p", "p", "p", "p", "p", "p", "p", "p",...  
## $ class <chr> "compact", "compact", "compact", "compact", "comp...

**Question 2**:

List five functions that you could use to get more information about the mpg data set.

**Answer**:

Some useful functions are:

* summary: print some summary statistics for each variable
* View: to see the whole data set in a nice spread-sheet like fashion
* str : get info on the structure of the mpg object
* dplyr::glimps: similar to str but much tidier
* class: to get its class

glimpse(mpg)

## Observations: 234  
## Variables: 11  
## $ manufacturer <chr> "audi", "audi", "audi", "audi", "audi", "audi", "...  
## $ model <chr> "a4", "a4", "a4", "a4", "a4", "a4", "a4", "a4 qua...  
## $ displ <dbl> 1.8, 1.8, 2.0, 2.0, 2.8, 2.8, 3.1, 1.8, 1.8, 2.0,...  
## $ year <int> 1999, 1999, 2008, 2008, 1999, 1999, 2008, 1999, 1...  
## $ cyl <int> 4, 4, 4, 4, 6, 6, 6, 4, 4, 4, 4, 6, 6, 6, 6, 6, 6...  
## $ trans <chr> "auto(l5)", "manual(m5)", "manual(m6)", "auto(av)...  
## $ drv <chr> "f", "f", "f", "f", "f", "f", "f", "4", "4", "4",...  
## $ cty <int> 18, 21, 20, 21, 16, 18, 18, 18, 16, 20, 19, 15, 1...  
## $ hwy <int> 29, 29, 31, 30, 26, 26, 27, 26, 25, 28, 27, 25, 2...  
## $ fl <chr> "p", "p", "p", "p", "p", "p", "p", "p", "p", "p",...  
## $ class <chr> "compact", "compact", "compact", "compact", "comp...