

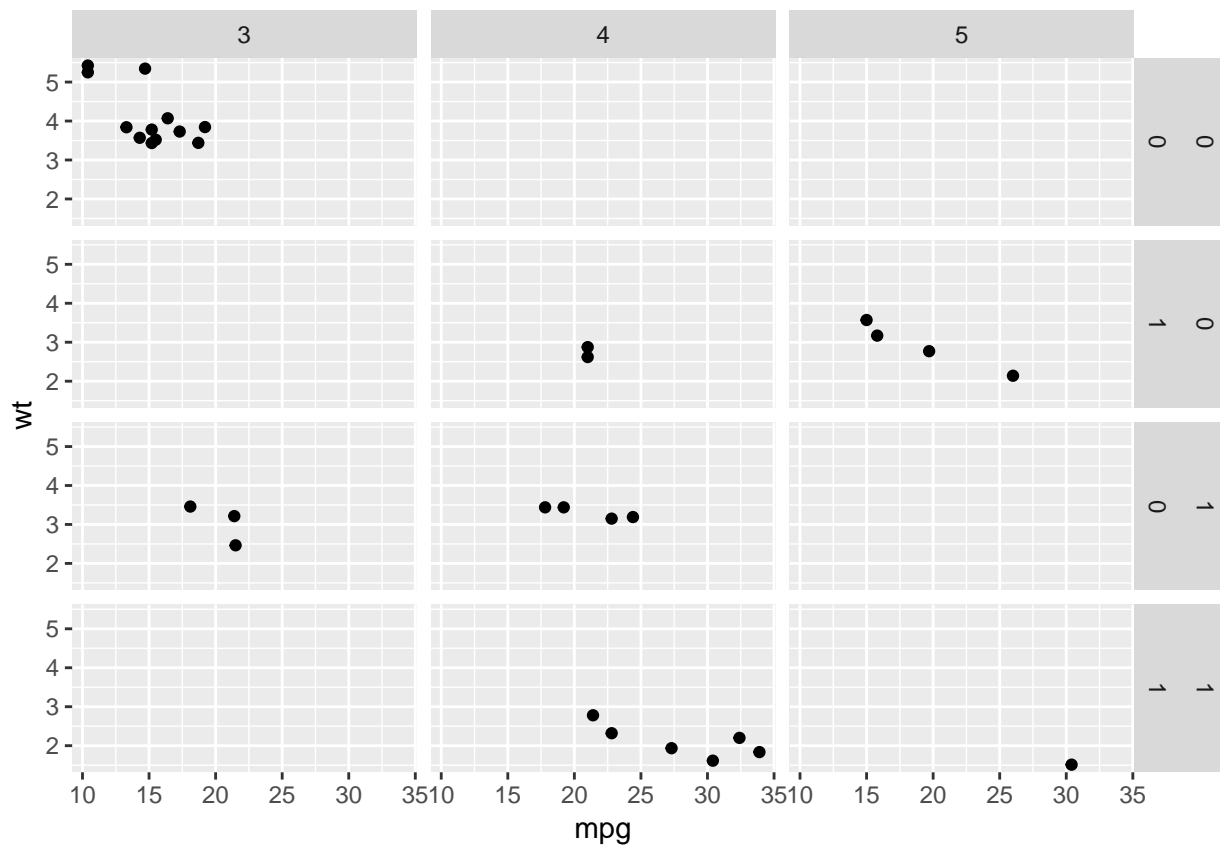
# Lab3\_AdvInformatics

## Bad Plot 1

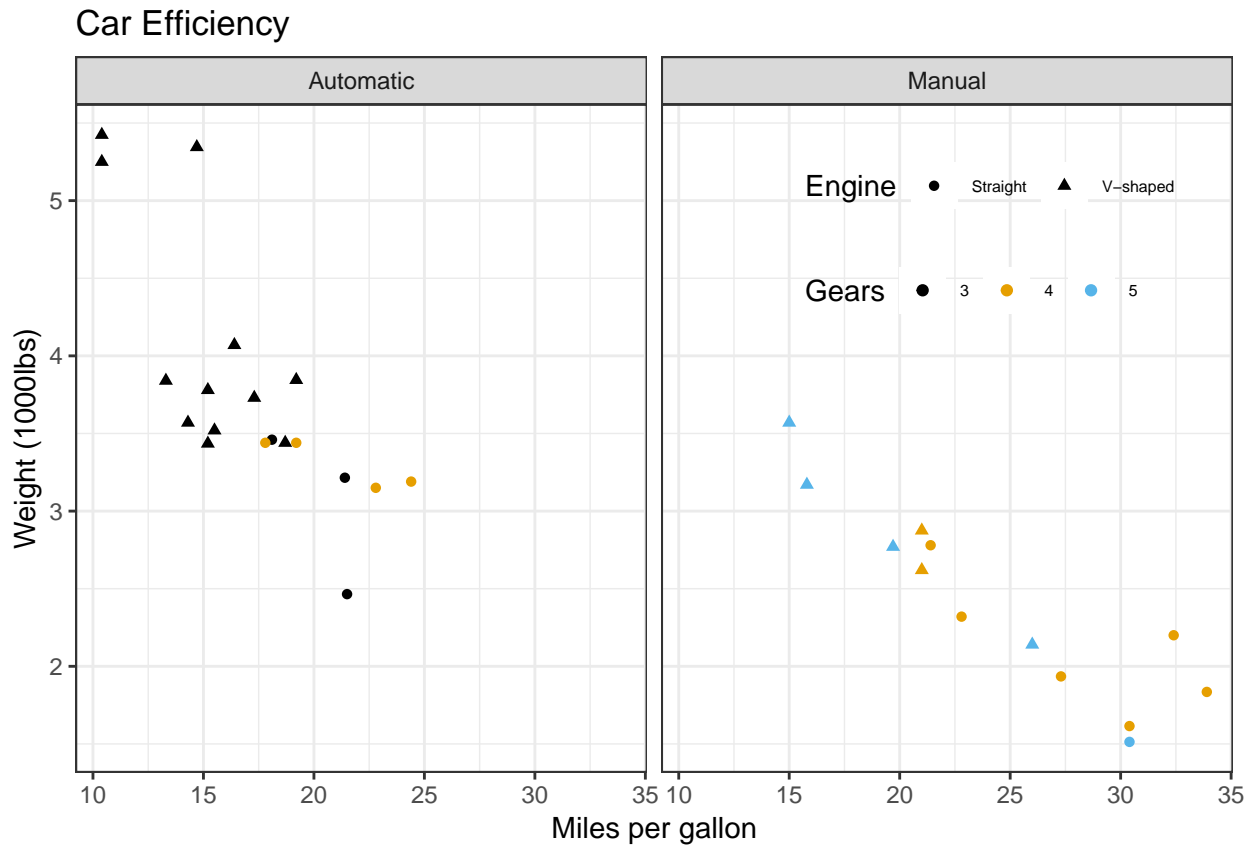
```
library(ggplot2)
library(ggthemes)
library(tibble)
library(dplyr)

##
## Attaching package: 'dplyr'
## The following objects are masked from 'package:stats':
##
##   filter, lag
## The following objects are masked from 'package:base':
##
##   intersect, setdiff, setequal, union
library(tidyr)
library(stringr)
mtcars <- mtcars

mtcars
  • mpg Miles/(US) gallon
  • cyl Number of cylinders
  • disp Displacement (cu.in.)
  • hp Gross horsepower
  • drat Rear axle ratio
  • wt Weight (1000 lbs)
  • qsec 1/4 mile time
  • vs Engine (0 = V-shaped, 1 = straight)
  • am Transmission (0 = automatic, 1 = manual)
  • gear Number of forward gears
  • carb Number of carburetors
mg <- ggplot(mtcars, aes(x = mpg, y = wt)) + geom_point() + facet_grid(vs + am ~ gear)
mg
```



```
mtcars$gear <- as.character(mtcars$gear)
mtcars$vs <- as.character(mtcars$vs)
mtcars$am <- as.character(mtcars$am)
mtcarsnew <- mtcars %>% mutate(Transmission = str_replace_all(am, c("0" = "Automatic", "1" = "Manual")))
mtcarsnew2 <- mtcarsnew %>% mutate(Engine = str_replace_all(vs, c("0" = "V-shaped", "1" = "Straight")))
mggood <- ggplot(data = mtcarsnew2, aes(x= mpg, y = wt, color = gear, shape=Engine)) + geom_point() + f
mggood
```



## Bad plot 2

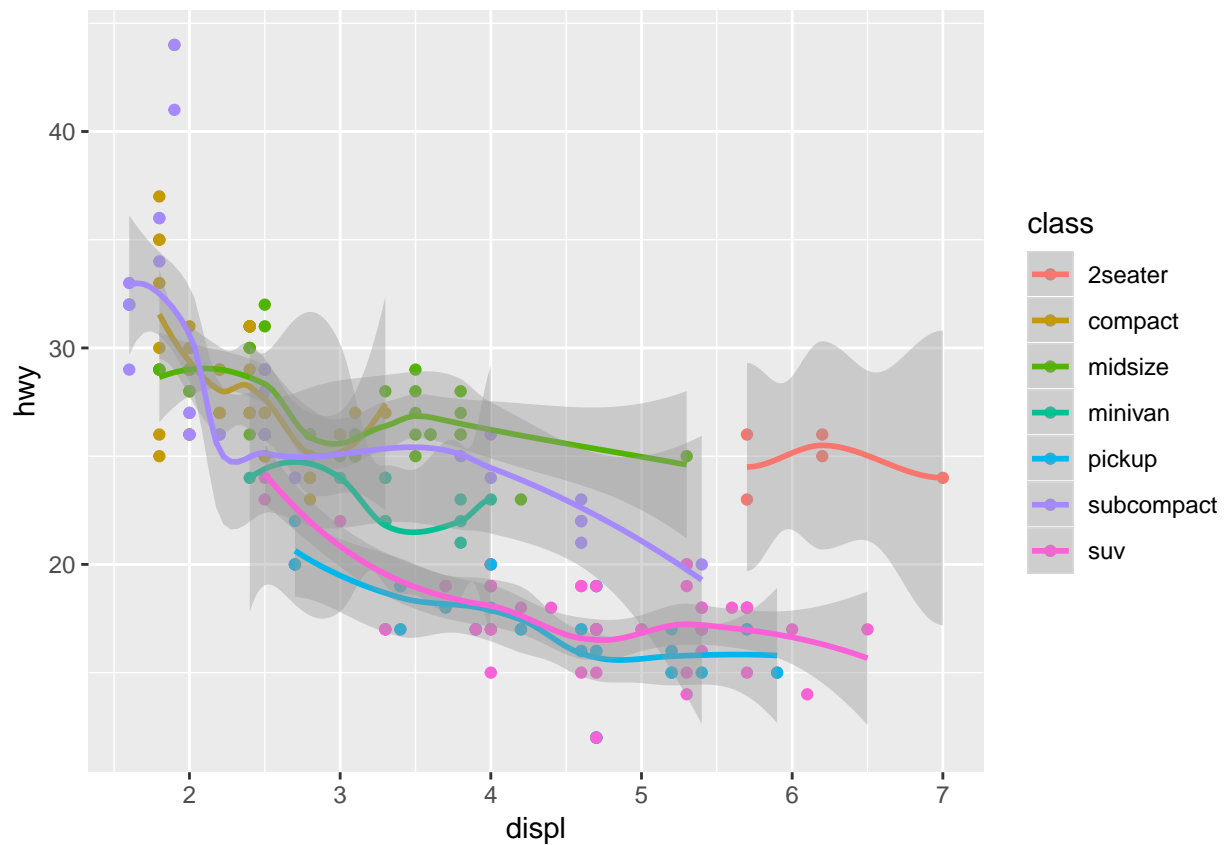
mpg data set

- manufacturer
- model model name
- displ engine displacement, in litres
- year year of manufacture
- cyl number of cylinders
- trans type of transmission
- drv f = front-wheel drive, r = rear wheel drive, 4 = 4wd
- cty city miles per gallon
- hwy highway miles per gallon
- fl fuel type
- class "type" of car

Get standard error the same color, put the legend inside the graph

```
ds <- ggplot(mpg, aes(displ, hwy, colour = class)) + geom_point() + geom_smooth()
ds
```

```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```



```
mpg <- mpg
dsnew <- ggplot(mpg, aes(displ, hwy, colour = class)) + geom_point(alpha = 0.3) + geom_smooth(aes(fill = class))
dsnew
```

```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```

