first_script.R

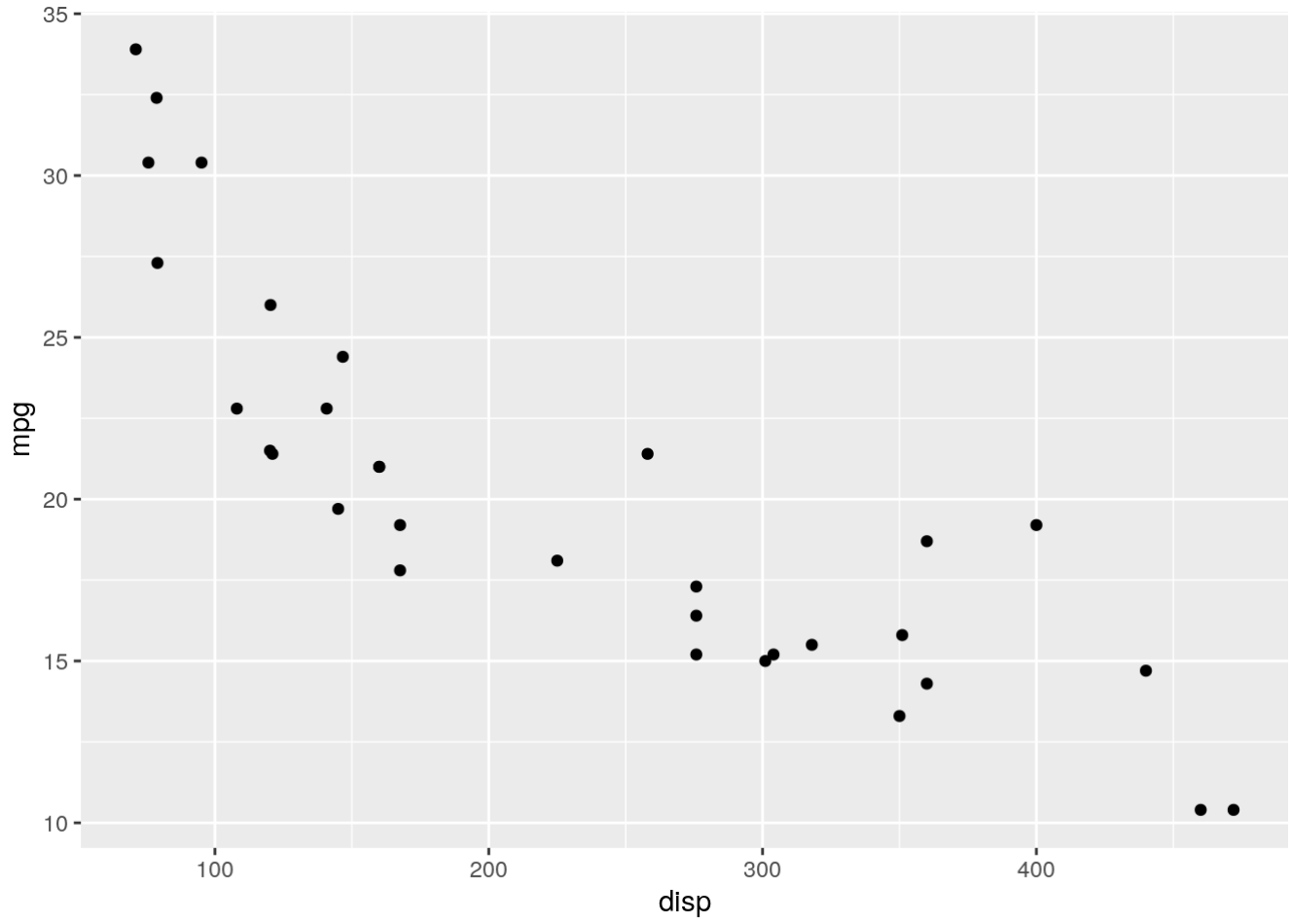
rstudio

2023-04-21

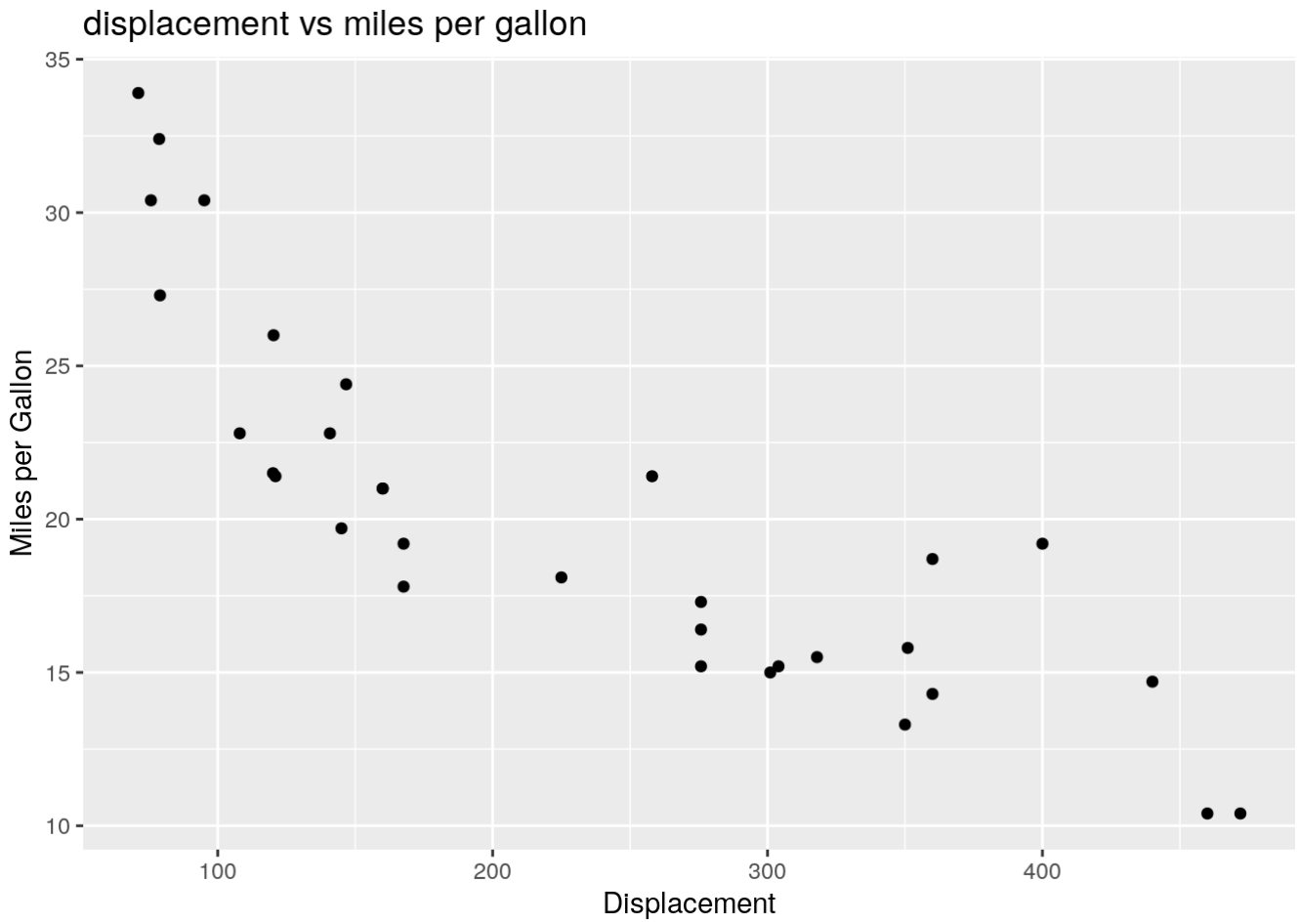
```
library(datasets)
# Load Data
data(mtcars)
# View first 5 rows
head(mtcars, 5)
```

```
##                    mpg cyl disp  hp drat    wt  qsec vs am gear carb
## Mazda RX4         21.0   6  160 110 3.90 2.620 16.46  0  1    4    4
## Mazda RX4 Wag     21.0   6  160 110 3.90 2.875 17.02  0  1    4    4
## Datsun 710        22.8   4  108  93 3.85 2.320 18.61  1  1    4    1
## Hornet 4 Drive    21.4   6  258 110 3.08 3.215 19.44  1  0    3    1
## Hornet Sportabout 18.7   8  360 175 3.15 3.440 17.02  0  0    3    2
```

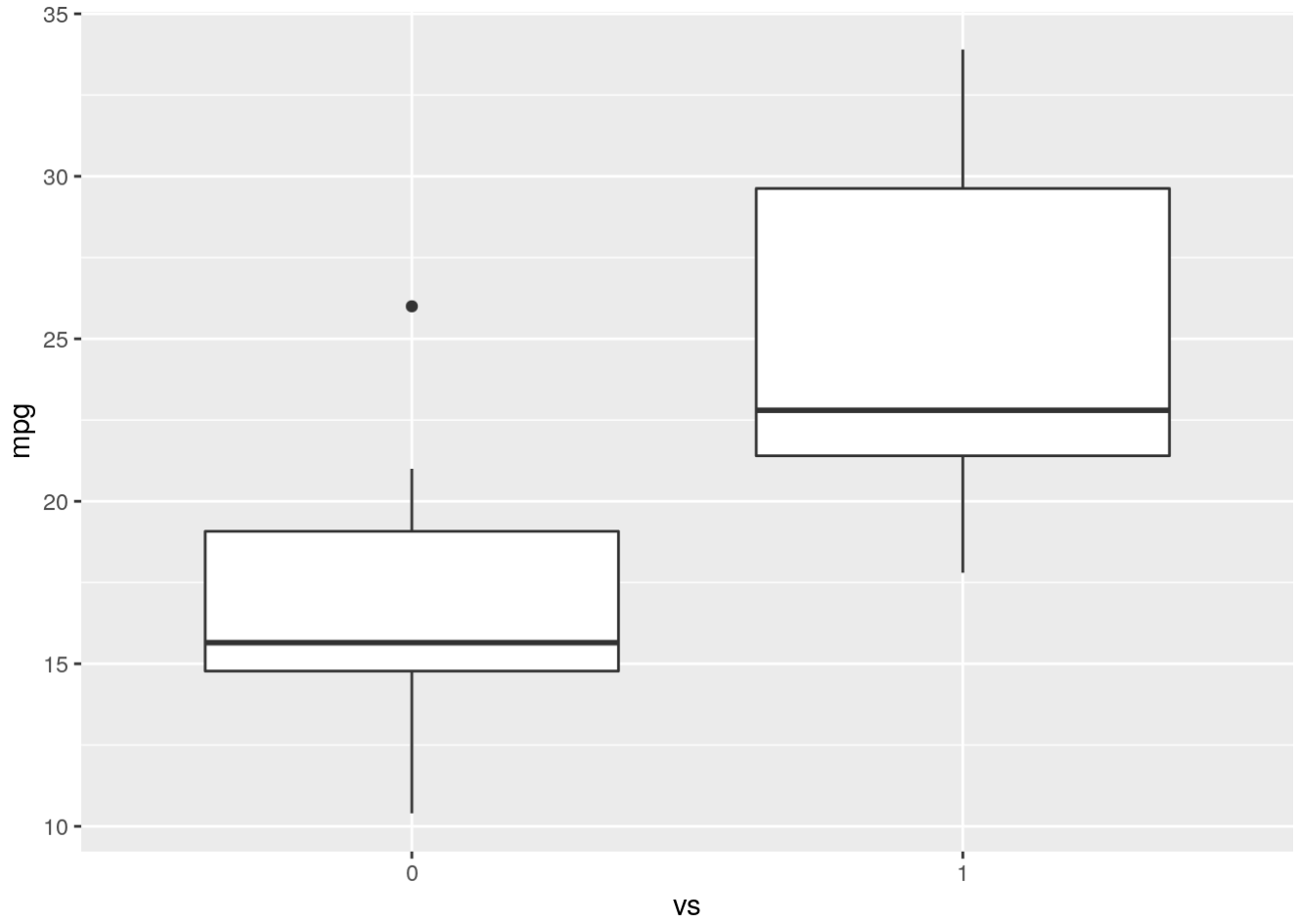
```
#load ggplot package
library(ggplot2)

# create a scatterplot of displacement (disp) and miles per gallon (mpg)
ggplot(aes(x=disp,y=mpg,),data=mtcars)+geom_point()
```



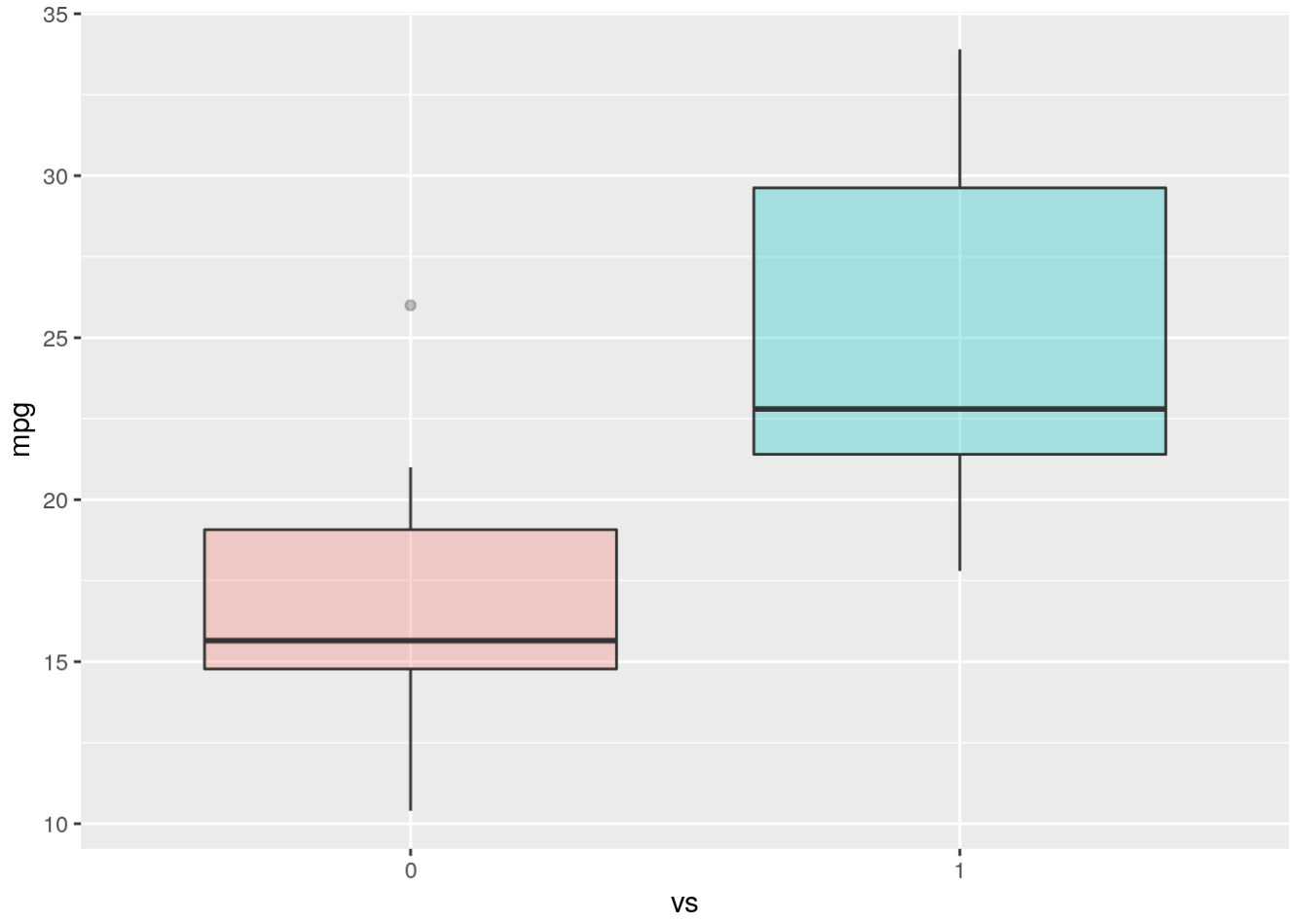
```
# change axis name
ggplot(aes(x=disp,y=mpg,),data=mtcars)+geom_point()+ggtitle("displacement vs miles per gallo
n") + labs(x = "Displacement", y = "Miles per Gallon")
```




```
#make vs a factor
mtcars$vs <- as.factor(mtcars$vs)
# create boxplot of the distribution for v-shaped and straight Engine
ggplot(aes(x=vs, y=mpg), data = mtcars) + geom_boxplot()
```




```
#Add color to the boxplots to help differentiate:
ggplot(aes(x=vs, y=mpg, fill = vs), data = mtcars) +
  geom_boxplot(alpha=0.3) +
  theme(legend.position="none")
```




```
#Finally, let us create the histogram of weight wt.
ggplot(aes(x=wt),data=mtcars) + geom_histogram(binwidth=0.5)
```