Module 12

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The Assignment

Create your own Markdown file and post the code on GitHub and your reflection on the process of Markdown in your blog.
This is just a reminder that an R Markdown is just a document. By studying the document source code file, compiling it, and observing the result, side-by-side with the source, you'll learn a lot about the R Markdown and LaTeX mathematical typesetting language, and you'll be able to produce nice-looking documents with R input and output neatly formatted. The content of your R Markdown can be the main functions you are creating for your final project where you will describe those functions or create FAQ to your final project. It is your decision. The key formatting constructs are discussed at http://rmarkdown.rstudio.com/authoring_basics.html Dr. Friedman

My Code

To show the RMarkdown file, I am going to explore the mtcars dataset.

There are 'r nrow(mtcars)' cars listed in this dataset.

```
Data <- mtcars

summary(Data)
```

```
##       mpg             cyl             disp             hp
##  Min.   :10.40   Min.   :4.000   Min.   : 71.1   Min.   : 52.0
##  1st Qu.:15.43   1st Qu.:4.000   1st Qu.:120.8   1st Qu.: 96.5
##  Median :19.20   Median :6.000   Median :196.3   Median :123.0
##  Mean   :20.09   Mean   :6.188   Mean   :230.7   Mean   :146.7
##  3rd Qu.:22.80   3rd Qu.:8.000   3rd Qu.:326.0   3rd Qu.:180.0
##  Max.   :33.90   Max.   :8.000   Max.   :472.0   Max.   :335.0
##       drat             wt             qsec             vs
##  Min.   :2.760   Min.   :1.513   Min.   :14.50   Min.   :0.0000
##  1st Qu.:3.080   1st Qu.:2.581   1st Qu.:16.89   1st Qu.:0.0000
##  Median :3.695   Median :3.325   Median :17.71   Median :0.0000
##  Mean   :3.597   Mean   :3.217   Mean   :17.85   Mean   :0.4375
##  3rd Qu.:3.920   3rd Qu.:3.610   3rd Qu.:18.90   3rd Qu.:1.0000
##  Max.   :4.930   Max.   :5.424   Max.   :22.90   Max.   :1.0000
##        am              gear            carb
##  Min.   :0.0000   Min.   :3.000   Min.   :1.000
##  1st Qu.:0.0000   1st Qu.:3.000   1st Qu.:2.000
##  Median :0.0000   Median :4.000   Median :2.000
##  Mean   :0.4062   Mean   :3.688   Mean   :2.812
```

```
##  3rd Qu.:1.0000   3rd Qu.:4.000   3rd Qu.:4.000
##  Max.   :1.0000   Max.   :5.000   Max.   :8.000
```

```
head(Data,6)
```

```
##                    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
## Valiant           18.1   6  225 105 2.76 3.460 20.22  1  0    3    1
```

```
Data$vs <- as.factor(Data$vs)
Data$cyl <- as.factor(Data$cyl)
```

Plotting our Data

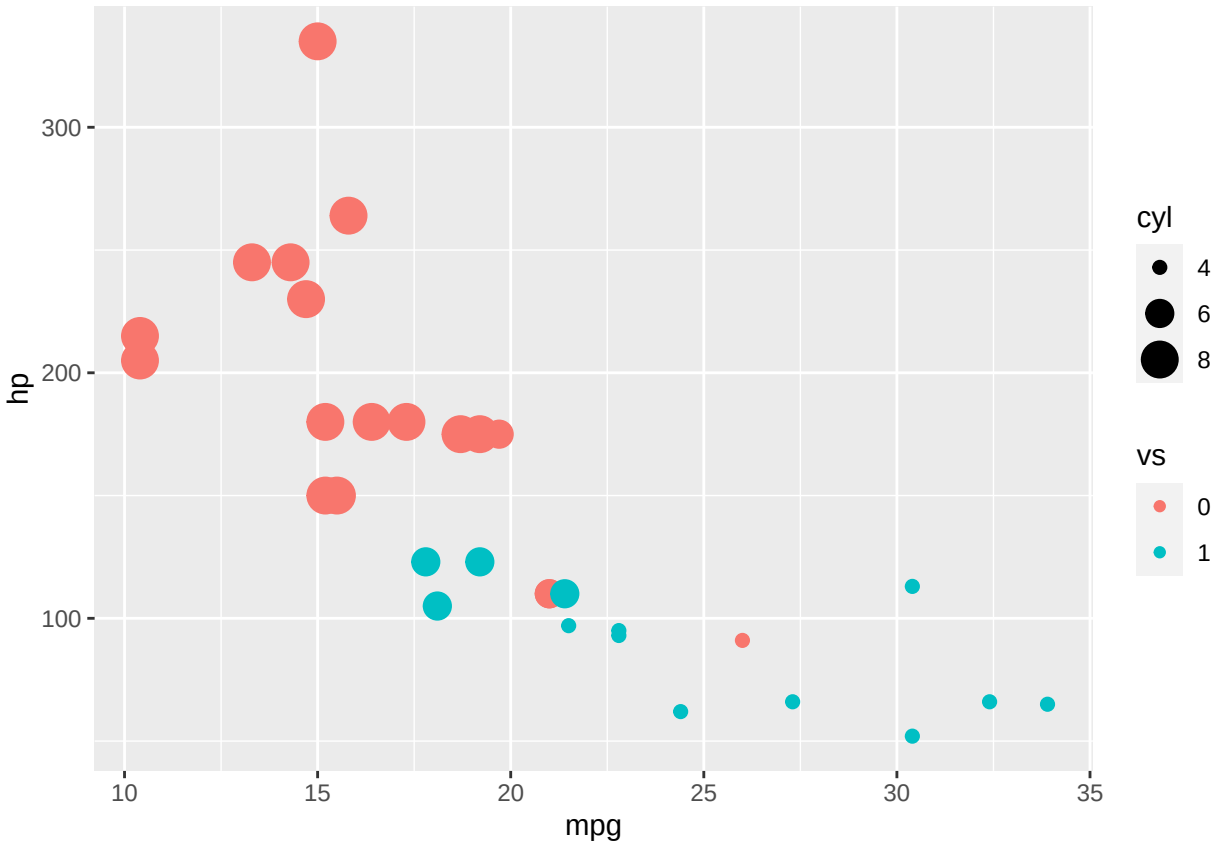
Here are some plots of our data.

```
library(ggplot2)
```

```
## Warning in register(): Can't find generic 'scale_type' in package ggplot2 to
## register S3 method.
```

```
ggplot(Data, aes(mpg,hp, color = vs, size = cyl))+
  geom_point()
```

```
## Warning: Using size for a discrete variable is not advised.
```



As you can see in our plot, cars with **more** *cylinders* have **lower** *mpg* and **higher** *hp*.