My First Markdown Document

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2021-03-06

R Markdown

This is a short R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

Material from this bootcamp can be found on my GitHub page.

When analysing data, a starting point is to examine the characteristics of each individual variable in the data set. The way to proceed depends upon the type of variable being examined. The variables can be one of two broad types: Attribute variable: has its outcomes described in terms of its characteristics or attributes; Measured variable: has the resulting outcome expressed in numerical terms.

Including R Code

When you click the Knit button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

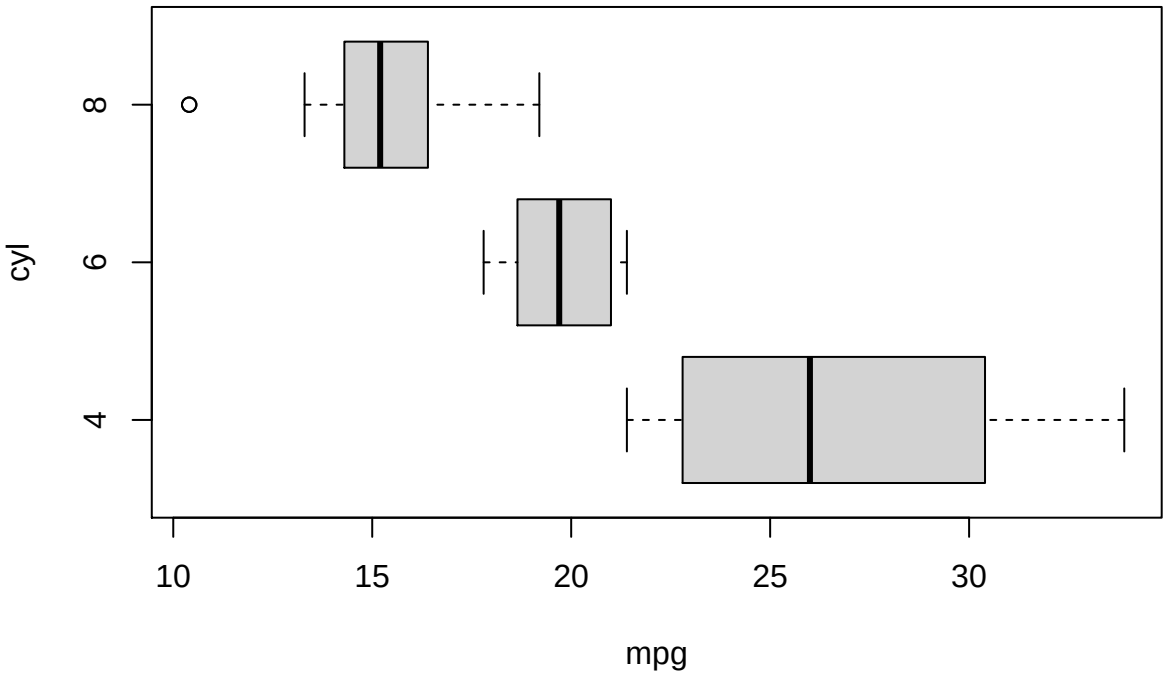
```
##      speed           dist       
##  Min.   : 4.0   Min.   :  2.00  
##  1st Qu.:12.0   1st Qu.: 26.00  
##  Median :15.0   Median : 36.00  
##  Mean   :15.4   Mean   : 42.98  
##  3rd Qu.:19.0   3rd Qu.: 56.00  
##  Max.   :25.0   Max.   :120.00
```

```
cars[1:10, ]
```

```
##    speed dist
## 1      4    2
## 2      4   10
## 3      7    4
## 4      7   22
## 5      8   16
## 6      9   10
## 7     10   18
## 8     10   26
## 9     10   34
## 10    11   17
```

Including Plots

You can also embed plots by setting `echo = FALSE` to the code chunk to prevent printing of the R code that generates the plot. For example:



Including Mathematical Equations

Let us fit the following model $mpg = b_0 + b_1 wt$ which we write using the LaTeX.

```
m1 <- lm(mpg ~ wt, data = mtcars)
summary(m1)
```

```
##
## Call:
## lm(formula = mpg ~ wt, data = mtcars)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -4.5432 -2.3647 -0.1252  1.4096  6.8727
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  37.2851     1.8776  19.858  < 2e-16 ***
## wt           -5.3445     0.5591  -9.559 1.29e-10 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 3.046 on 30 degrees of freedom
## Multiple R-squared:  0.7528, Adjusted R-squared:  0.7446
## F-statistic: 91.38 on 1 and 30 DF,  p-value: 1.294e-10
```

What do we think of this model?

Let's talk about this next time we meet up.