

MyFirstMarkdown

2022-06-28

R Markdown

This is an 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>.

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
```

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

```
library(readr)
iris <- read_csv("iris.csv", col_names = F)

## Rows: 150 Columns: 5
## -- Column specification -----
## Delimiter: ","
## chr (1): X5
## dbl (4): X1, X2, X3, X4
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
colnames(iris) <- c('Sepal.Length', 'Sepal.Width', 'Petal.Length', 'Petal.Width', 'Class')

sapply(iris, class)
```

```
## Sepal.Length Sepal.Width Petal.Length Petal.Width      Class
##      "numeric"      "numeric"      "numeric"      "numeric" "character"

iris$Class <- as.factor(iris$Class)
sapply(iris, class)
```

```
## Sepal.Length Sepal.Width Petal.Length Petal.Width      Class
##      "numeric"      "numeric"      "numeric"      "numeric"      "factor"
```

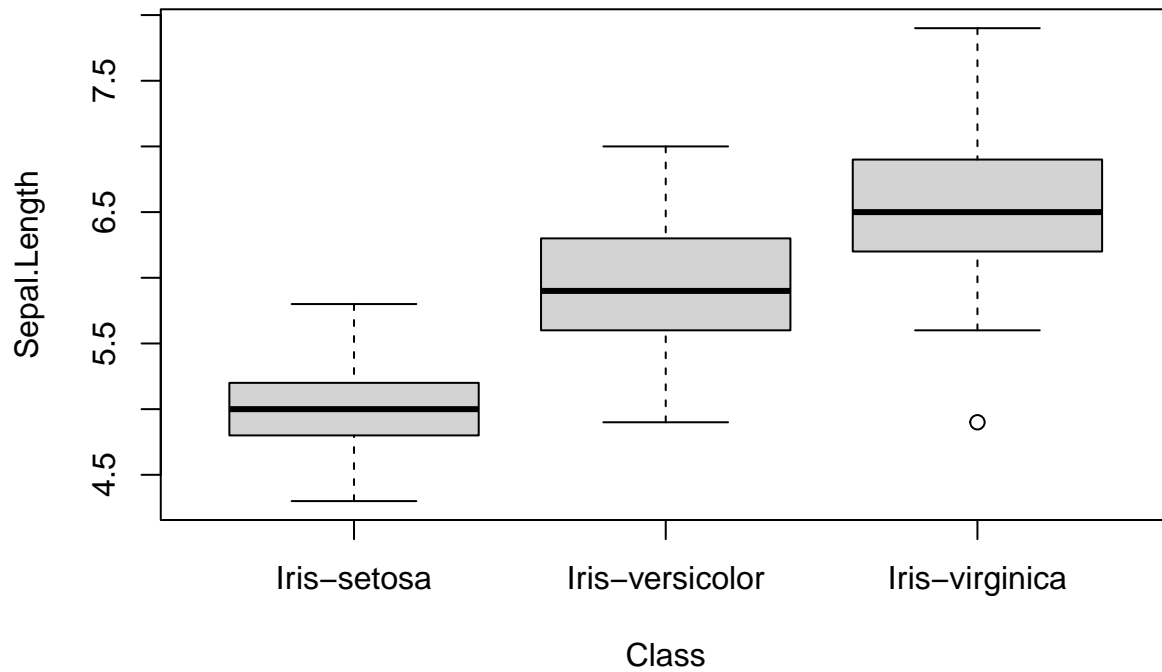
```
# install.packages("dplyr")
library(dplyr)
```

```
##
## 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
```

```
iris %>% group_by(Class) %>% summarize( Min.Sepal.Length = min(Sepal.Length, na.rm=T),
                                       Max.Sepal.Length = max(Sepal.Length, na.rm=T),
                                       Mean.Sepal.Length = mean(Sepal.Length, na.rm=T),
                                       SD.Sepal.Length = sd(Sepal.Length, na.rm=T)) %>% as.data.frame
```

```
##           Class Min.Sepal.Length Max.Sepal.Length Mean.Sepal.Length
## 1   Iris-setosa           4.3           5.8           5.006
## 2 Iris-versicolor           4.9           7.0           5.936
## 3  Iris-virginica           4.9           7.9           6.588
## SD.Sepal.Length
## 1      0.3524897
## 2      0.5161711
## 3      0.6358796
```

```
boxplot(Sepal.Length ~ Class, data = iris)
```



```
boxplot(Sepal.Width ~ Class, data = iris)
```

