## BIT07-1stRmd

#### Paco Hulpiau

January 16, 2018

#### 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(iris)
```

```
Sepal.Length
                       Sepal.Width
                                        Petal.Length
                                                         Petal.Width
##
##
    Min.
            :4.300
                     Min.
                             :2.000
                                       Min.
                                               :1.000
                                                        Min.
                                                                :0.100
                                                        1st Qu.:0.300
    1st Qu.:5.100
                      1st Qu.:2.800
                                       1st Qu.:1.600
##
##
    Median :5.800
                     Median :3.000
                                       Median :4.350
                                                        Median :1.300
##
    Mean
            :5.843
                     Mean
                             :3.057
                                       Mean
                                               :3.758
                                                        Mean
                                                                :1.199
##
    3rd Qu.:6.400
                     3rd Qu.:3.300
                                       3rd Qu.:5.100
                                                        3rd Qu.:1.800
##
    Max.
            :7.900
                     Max.
                             :4.400
                                       Max.
                                               :6.900
                                                        Max.
                                                                :2.500
##
          Species
##
    setosa
               :50
##
    versicolor:50
##
    virginica:50
##
##
##
```

#### Structure of the iris dataset

With the str() function you get a nice overview of the structure of the data in the data frame.

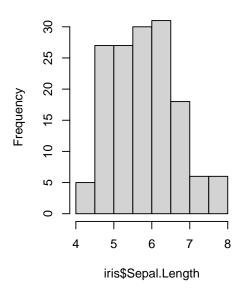
```
str(iris)
```

```
## 'data.frame': 150 obs. of 5 variables:
## $ Sepal.Length: num 5.1 4.9 4.7 4.6 5 5.4 4.6 5 4.4 4.9 ...
## $ Sepal.Width : num 3.5 3 3.2 3.1 3.6 3.9 3.4 3.4 2.9 3.1 ...
## $ Petal.Length: num 1.4 1.4 1.3 1.5 1.4 1.7 1.4 1.5 1.4 1.5 ...
## $ Petal.Width : num 0.2 0.2 0.2 0.2 0.2 0.4 0.3 0.2 0.2 0.1 ...
## $ Species : Factor w/ 3 levels "setosa", "versicolor", ..: 1 1 1 1 1 1 1 1 1 1 ...
```

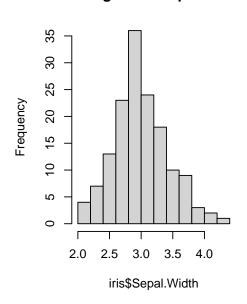
# **Including Plots**

You can also embed plots, for example:

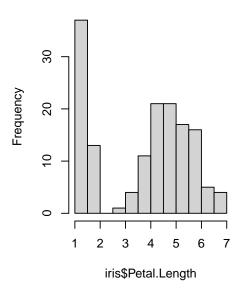
## Histogram of sepal length



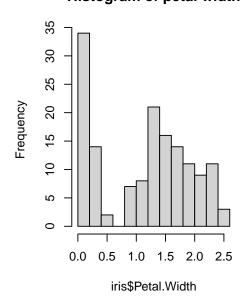
## Histogram of sepal width



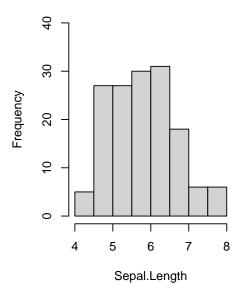
## Histogram of petal length



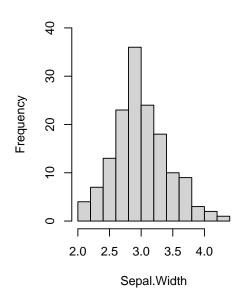
# Histogram of petal width



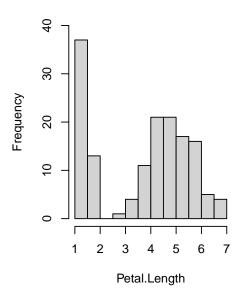
## **Histogram of Sepal.Length**



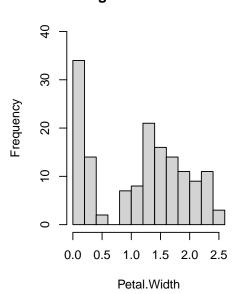
## Histogram of Sepal.Width



## Histogram of Petal.Length



## Histogram of Petal.Width



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