My First Markdown Document

Simon Joly

BIO 6008 - Fall 2015

R Markdown is a language to easily write dynamic documents from R. It is based on the very popular and simple Markdown language. It is particularly useful to create documents in which you want to include R code and R figures or results. R markdown is particularly useful to make reproducable research. Indeed, (they can be automatically regenerated whenever underlying R code or data changes). I will provide an easy example here on how to create a R Markdown document. For more details on using R Markdown see http://rmarkdown.rstudio.com.

You will need RStudio installed, as well as the packages `knitr` and `rmarkdown`. You can install them using the command

```
install.packages("rmarkdown")
install.packages("knitr")
```

From RStudio, you can choose `File>new file>RMarkdown` to create a new R Markdown document. The document will have a header that contains a title, the author, the date, and other informations.

```
---
title: "My First Markdown Document"
author: "Me"
date: "today"
---
```

You can look on the web for some the Markdown syntax, but here is a quick example of text, followed by the output the output.

```
# Frist header
## Second header
When you write text, you can have it in **bold** or in *italics*.

> This is how you make a block quote
```

Frist header

Second header

When you write text, you can have it in **bold** or in *italics*.

> This is how you make a block quote

But R Markdown is especially interesting to include R code in the output document, as well as the results obtained when the code is executed. For instance, if you want to show the following code in the document:

```
summary(cars)
```

It will look like this once formatted with R syntax.

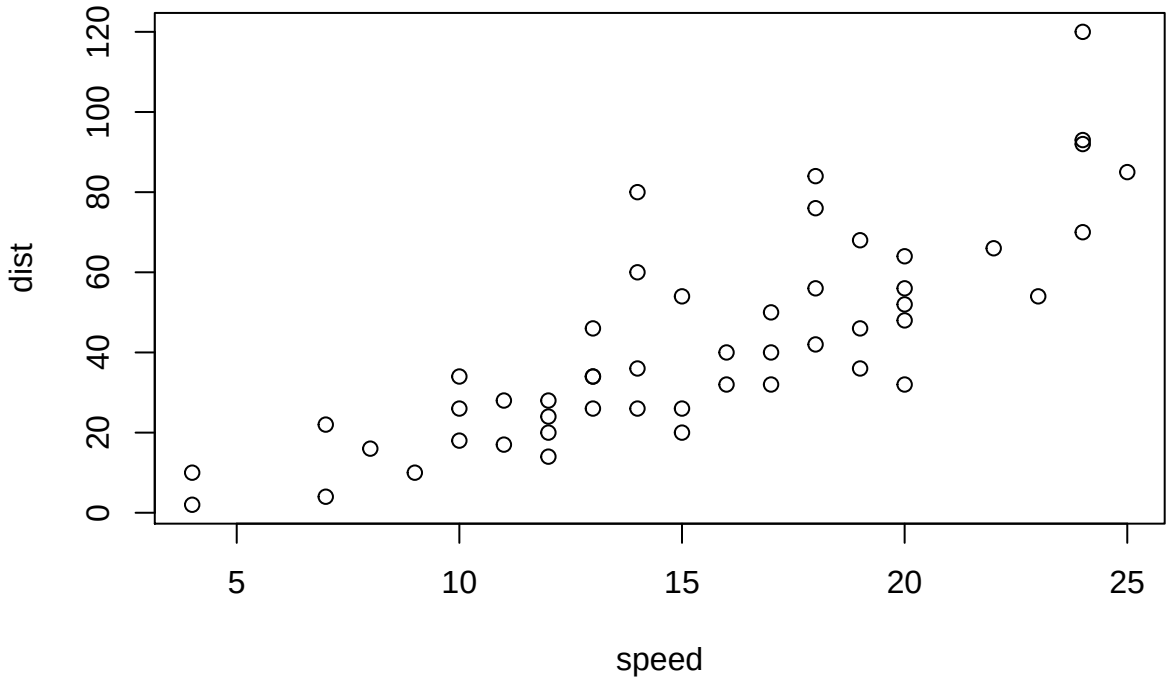
```
summary(cars)
```

```
##      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
```

As you can see, the command is followed by the R result in the document.

And you can output the results of plot fonctions such as `plot(cars)` directly in the document:

```
plot(cars)
```



To export your document in html or pdf format, you just have to press the button "Knit hmtl" or "Knit pdf" in RStudio.

Please try to create a document of your own, reading and plotting a phylogeny for instance.

For more details on using R Markdown see http://rmarkdown.rstudio.com. You can also look at the source code for the document presented in this course.