Rmarkdown-starter

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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.

The beauty of Markdown is to embed R codes, within the text, such that in the end, a document could contain all the text and code to create figures and tables, in ***one document***. I have written a crash course on R Markdown, which you can find at https://francoisbirgand.github.io/tutorial-RMarkdown__instructions.html.

There are three components to an R Mardown document (.Rmd):

- YAML header
- Text
- Code chunks

After you are done reading the crash course, you will want to be able to find a reference summary of R markdown here.

- YAML header: The header of the document starts with a YAML which acronym started as "Yet Another Markup Language" and now apparently stands for "YAML Ain't Markup Language"... The YAML Header specifies how the document will be formatted.
- Text: most of your writing will be done using plain text, very much like you have been doing with Word, with mark-up alterations. Many details on mark-up are in the crash course. Spell check can be done using
    - A spell check button to the right of the save button (with "ABC" and a check mark).
    - Edit > Check Spelling...
    - The F7 key
- Code Chunks: This is where you will add the actual R code that will create tables and figures.
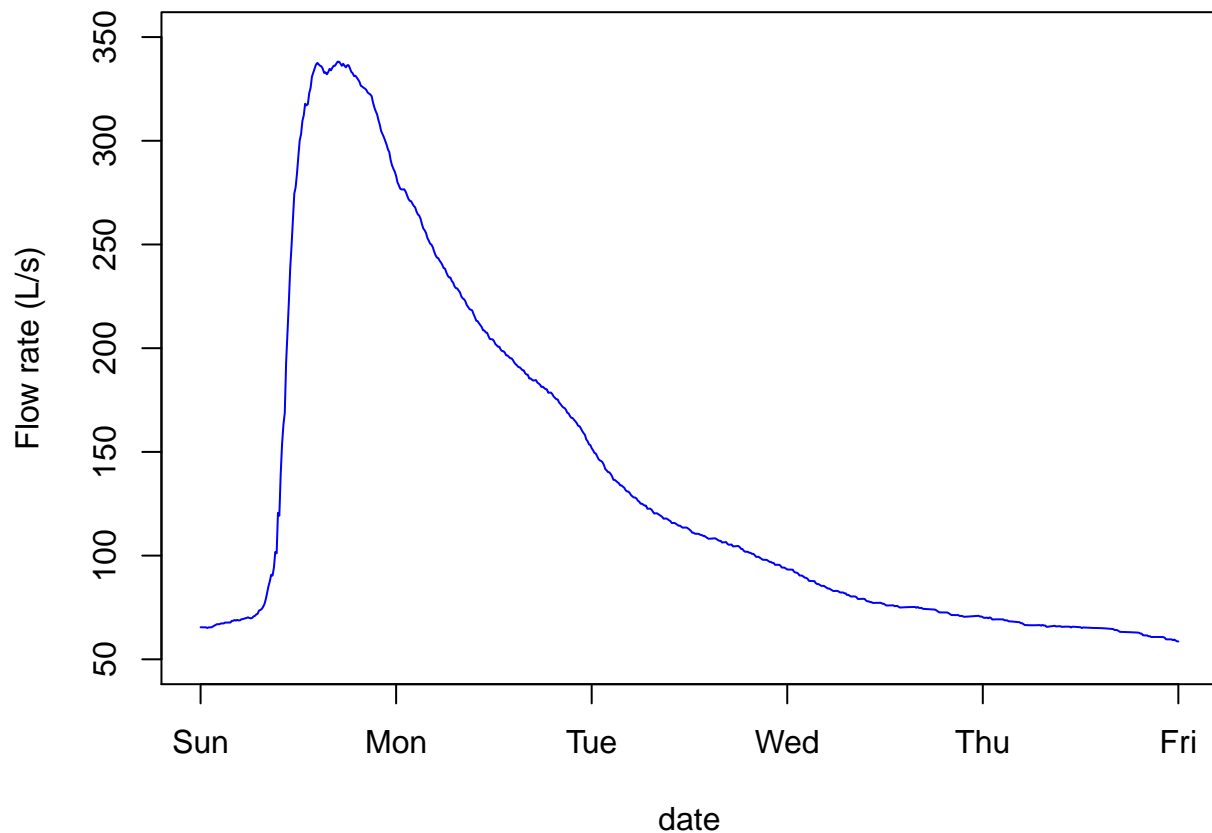
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
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 a plot of this hydrograph:

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

You can calculate things and incorporate them directly into your R markdown document. For example,

```
You can embed some r code within the text by using Maximum flow = `r signif(max(Q),3)` m&sup3;  to give
```

You can embed some r code within the text by using Maximum flow = 338 m³ to give 3 significant digits to the maximum flow. The code to make ³ for m³ is `³`