R programming 2017 Prepping for Tutorial 4 - Rmarkdown

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R Markdown

This is an R Markdown document. In problem set # 3, you will create your own R Markdown documents and run R analyses in them. You can find the material of PS3 at https://github.com/rossihabibi/rprog2017-ps3. Before you go to class, please follow the instructions in this document.

R Markdown is a simple formatting syntax for writing HTML, PDF, and MS Word documents. For more details, see http://rmarkdown.rstudio.com.

In Rstudio, you do not run an .Rmd file the same way of an .R file. When you click the **Knit** button in Rstudio, a document will be generated that includes both content as well as the output of any embedded R code chunks within the document.

R code chunks are small pieces of code that are embedded (google for definition) inline within the text of 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
```

The R Markdown engine will show the results of the R code chunk in the document it produces (HTML/PDF/etc. . .)

Instructions

1. In order to use the R Markdown package, you have to install it with: `install.packages("rmarkdown")`
2. If not done yet, install the package knitr : `install.packages("knitr")`
3. If you do not have latex installed on your computer, please do so : Install MikTex for Windows and TeX Live for Apple. (Use google)
4. On your computer, install git. How? Like this : https://git-scm.com/book/en/v2/Getting-Started-Installing-Git - In French : https://git-scm.com/book/fr/v2/Démarrage-rapide-Installation-de-Git
5. Go to https://github.com and create a new account using your ut1 e-mail address. Then go to https://education.github.com/pack and get your Student Discount (free private folders basically) For details, see here https://git-scm.com/book/en/v2/GitHub-Account-Setup-and-Configuration - In French https://git-scm.com/book/fr/v2/GitHub-Configuration-et-paramétrage-d\T1\textquoterightun-compte
6. Generate an SSH key on your computer, and link it to your Github account. How? https://git-scm.com/book/en/v2/Git-on-the-Server-Generating-Your-SSH-Public-Key, In french : https://git-scm.com/book/fr/v2/Git-sur-le-serveur-Génération-des-clés-publiques-SSH#_generate_ssh_key

Checks

1. To check if you did steps 1 and 2 correctly, open the accompanying file "ps3-prep-check.Rmd" in R Studio, and click on the Knit button. You should have an HTML page open after some moments. If not, read the error and solve it.
2. To check if you did step 3 correctly, open the accompanying file "ps3-prep-check-pdf.Rmd" in R Studio, and click on the Knit button. You should have a PDF file open after a few moments. If not, read the error and solve it. Make sure RStudio can find your latex binaries (google for info)
3. To check if you did Step 4 correctly, create a test folder in your rprog folder. Call it "TEST_GIT" Then open Terminal (on Mac), or Powershell (or CMD on Windows). Inside the command line navigate to your rprog/TEST_GIT folder (using "cd rprog/TEST_GIT/" or another path), and run the command "git init". It should give you a message similar to this : "Initialized empty Git repository in . . . /rprog/TEST_GIT/.git"
4. To check if your step 5 is OK, find the public address of your Github account and please fill it under the right column in the Google Sheet. For example my public Github address is https://github.com/rossihabibi; find yours. The Google sheet is here : https://docs.google.com/spreadsheets/d/1mM-9CveHeWKjN0nWaxgfSDXnqAuDw2qrdw6hempVJmw/edit?usp=sharing (Sheet : Course info)