

Intro STT5100

Markdown et Manipulation des données

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Structure proposée

- Un R-Markdown par cours
- Un exercice “guidée”
- Des exercices à faire chez soi
- Réunions sur demande (je suis disponible la plupart des jours - en ligne ou au PK)
- Vous pouvez guider ce que nous faisons! (Données spécifiques, programmation (Git, SQL), graphics etc..)

Poll 1

RMarkdown

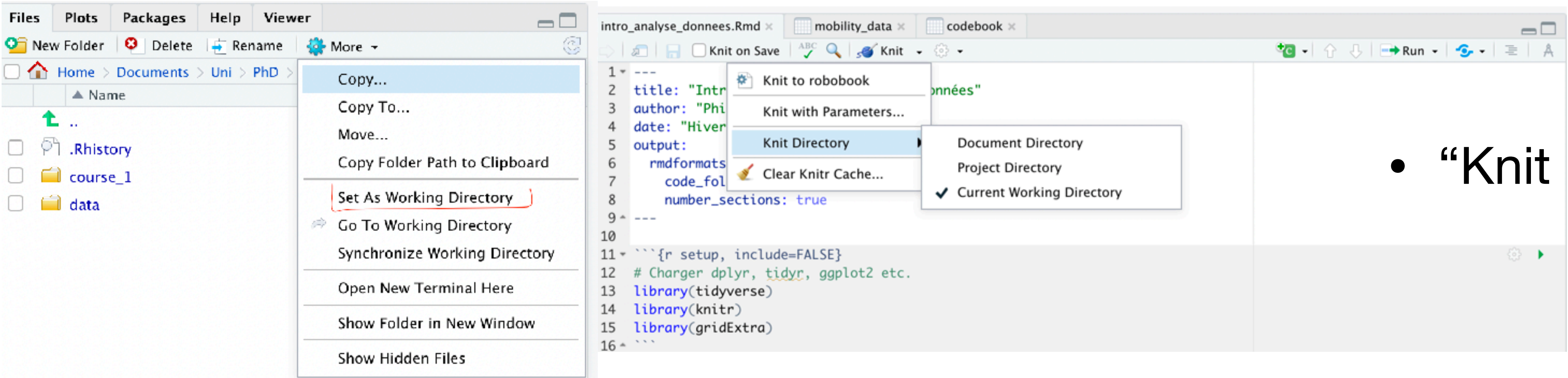
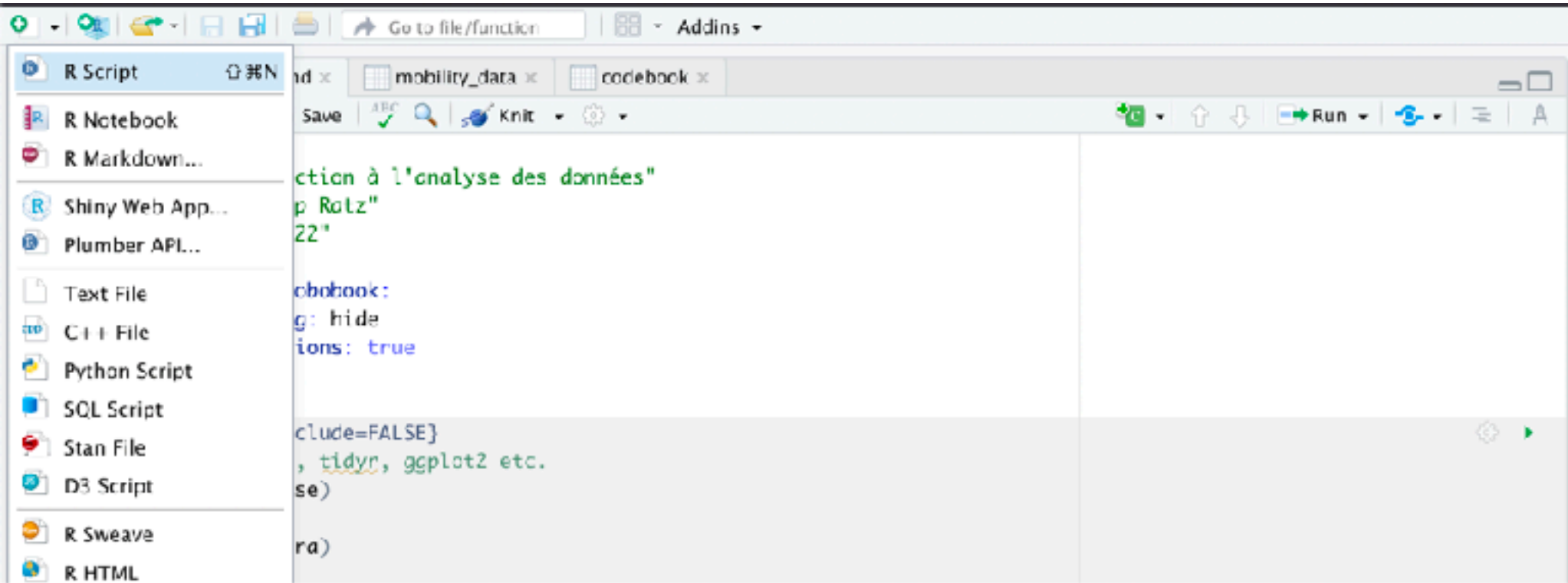
Liens

- <https://bookdown.org/yihui/rmarkdown-cookbook/> (livre entier)
- <https://www.rstudio.com/wp-content/uploads/2015/02/rmarkdown-cheatsheet.pdf> (cheatsheet)
- <https://cran.r-project.org/web/packages/gridExtra/vignettes/arrangeGrob.html> (grid arrange)
- [https://holtzy.github.io/Pimp-my-rmd/#2 figures in 2 columns](https://holtzy.github.io/Pimp-my-rmd/#2_figures_in_2_columns) (Pimp my .Rmd)
- <https://github.com/juba/rmdformats> (Rmdformats)

RMarkdown

Prelims - I

- Creer un .Rmd



- “Knit Directory”

RMarkdown

Prelims - II

```
175:67 [C] Chunk 6
Console Terminal x Render x Jobs x
R 4.1.2 ~ /
> model_middle_class_poly <- lm(e_rank_b ~ poly(frac_middleclass, 99),
+                               data=mobility_data_nomissings)
Error in poly(frac_middleclass, 99) :
  'degree' must be less than number of unique points
> |
```

Google

R 'degree' must be less than number of unique points

r 'degree' must be less than number of unique points

Google Search

I'm Feeling Lucky

Report inappropriate predictions

Learn more

Stack Overflow

Questions and answers

Question

Why I am getting errors in R for "degree' must be less than number of unique points" in this case? set.seed(0) # this is fine...

Answer · 8 votes

In R, the poly function generates a polynomial a...

More

Question

I am trying to generate orthogonal polynomials in R, but I keep getting an error I don't understand > poly(1:1000, 50) Error in...

Answer · 15 votes

Numerical overflow. If you look at the code for poly,...

More

Question

Cannot use poly(x) within a loop? 'degree' must be less than number of unique points

Answer · 1 vote

Numerical overflow would be my guess. If you dig int...

More

Feedback

https://stats.stackexchange.com · questions · n-polynom...

R polynomial expansion error on "unique points" and degree

5 Dec 2016 — Why I am getting errors in R for "degree' must be less than number of unique points" in this case? set.seed(0) # this is fine dim(poly(...

1 answer · Top answer: In R, the poly function generates a polynomial and then does a QR de...

RMarkdown

Prelims - III

- Prettify documents avec rmdformats

The top screenshot shows the RStudio editor with the following R Markdown code:

```
1 ---
2 title: "Introduction à l'analyse des données"
3 author: "Philipp Ratz"
4 date: "Hiver 2022"
5 output: html_document
6 ---
7
8 ```{r setup, include=FALSE}
9 # Charger dplyr, tidyr, ggplot2 etc.
10 library(tidyverse)
11 library(knitr)
12 library(gridExtra)
13 ```
14
15 # Markdown 101
16
17 Markdown est un "langage de balisage" et peut être
18 structure comme word ou latex. La syntaxe est assez
19
20 quelques exemples (tiré de https://www.markdownguide.org/basic-syntax):
```

The resulting HTML output (top right) shows the following content:

Introduction à l'analyse des données

Philipp Ratz
Hiver 2022

Markdown 101

Markdown est un "langage de balisage" et peut être utilisé pour donner aux documents ou latex. La syntaxe est assez simple.

quelques exemples (tiré de <https://www.markdownguide.org/basic-syntax>):

```
# Heading level 1
Titre de section
```

The bottom screenshot shows the same R Markdown code with the following additional code in the YAML header:

```
6 rmdformats::robobook:
7   code_folding: hide
8   number_sections: true
```

The resulting HTML output (bottom right) shows a more professional layout with a table of contents and a sidebar:

Introduction à l'analyse des données

- 1 Markdown 101
- 2 Manipulation des Données
- 3 Analyse Visuelle
- 4 Analyse descriptive
- 5 Exemple guidée

1 Markdown 101

Markdown est un "langage de balisage" et peut être utilisé pour donner aux documents texte tels que R Markdown une structure comme word ou latex. La syntaxe est assez simple.

quelques exemples (tiré de <https://www.markdownguide.org/basic-syntax>):

RMarkdown

YAML (Header)

- “Instructions” pour la creation d’un HTML / .pdf / .votre_format_fav
- Le plus simple est d’utiliser un package (ou Google)
- Mais - peut être personnalisé avec un fichier .css
- Pas objet pour notre cours

```
output:  
  html_document:  
    css: ["style-1.css", "style-2.css"]
```

```
1 ---  
2 title: "MAT998H Homework I"  
3 author: "Philipp Ratz"  
4 output:  
5   rmdformats::robobook:  
6     code_folding: hide  
7 ---  
8  
9 ```{r, message=FALSE, results=F, warning=F, output=F}  
10 # Change this String to the project directory!  
11 home_string <- '~/Documents/Uni/PhD/UQAM/courses/pricing_iard/coding/'  
12 setwd(home_string)  
13  
14 # Avoid some namespace conflicts:  
15 library(MASS, exclude = "select")  
16  
17 required_packs <- c('dplyr',  
18                     'recipes',  
19                     'ggplot2')
```