

Erasmus  
School of  
Economics

# Writing reports with R Markdown

Pre-workshop guide:  
R Markdown Installation

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Share your knowledge week 2023



# Goal of this presentation:

- Learn how to install R, RStudio and R Markdown
- Load the necessary packages to compile PDF files using R Markdown
- Verify if your environment is ready for the workshop

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# What are **NOT** goals of this presentation:

- To motivate RMarkdown use (topic for the workshop)
- To explain what is the structure of a Rmarkdown file
- To teach you R, Latex, or Markdown (not the focus of the workshop)

For now, just focus in following the steps in this tutorial so you can use RMarkdown during the workshop!



# Step 1: download R

If you do not have R installed, follow these steps:

- 1) Go to <https://www.r-project.org/>
- 2) Click on CRAN (left menu, below downloads)
- 3) Choose a mirror (any mirror is fine)
- 4) Choose the best option that suits your operational system under 'download and install R'
- 5) For windows, choose 'base' and then 'Download R 4.1.1 for Windows'
- 6) For macOS, choose the most recent pkg displayed (just check for the messages before)
- 7) For linux, choose your distribution



## Step 2: download RStudio

AFTER installing R, you will download and install R Studio.

- 1) Go to <https://www.rstudio.com/>
- 2) Click in products > RStudio
- 3) Choose Rstudio Desktop
- 4) You most likely want the open source (free) edition. But you can pay the Pro version if you need for more support and/or cloud resources.
- 5) Download and install.

A stylized, handwritten-style logo for Erasmus, featuring a large, flowing 'E' followed by the word 'Erasmus' in a cursive script.

## Step 3: making sure you can use RMarkdown

AFTER installing R and RStudio, you need to setup your RMarkdown.

- 1) Go to the command line\* on RStudio and run `install.packages("rmarkdown")`
- 2) After the installation, check if it worked by going to File > New File > R Markdown
- 3) Start with a html document, which requires no further action. Just click on knitr.
- 4) To compile PDF files, you need to setup LaTeX. If you do not have it installed in your machine, I recommend you use TinyTex:

`install.packages("tinytex")` followed by `tinytex::install_tinytex()`

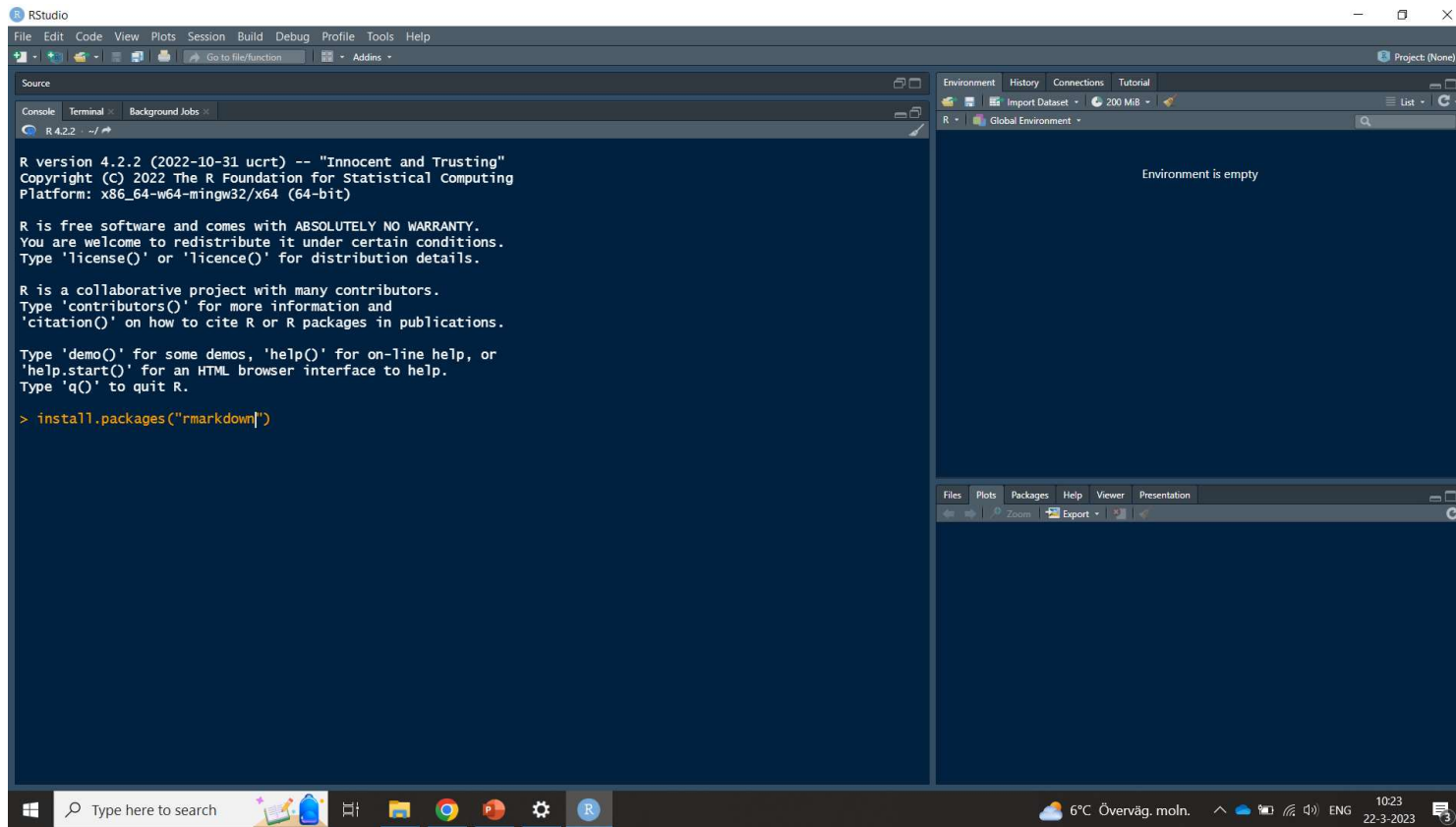
- 5) Now repeat step 2, but choose a pdf file\*\*. Try to click on knitr.

\* See next slide for images

\*\* If you have an EUR computer, this might fail due to admin rights. If you have sudo rights, close Rstudio and open with sudo. Otherwise, just use html.

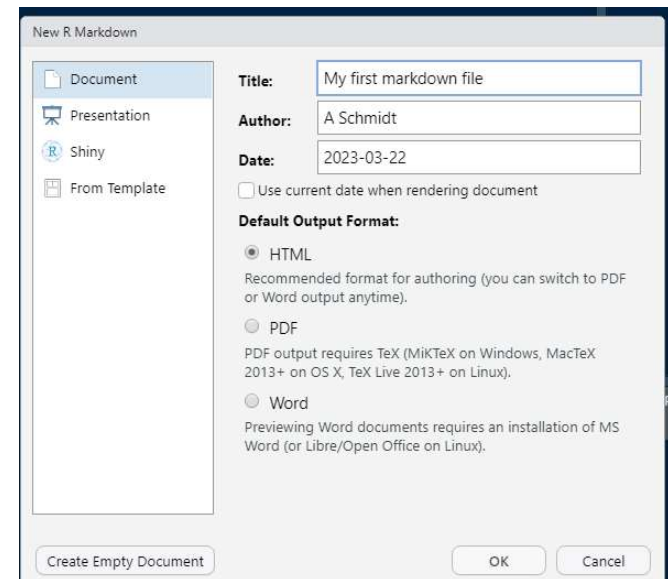
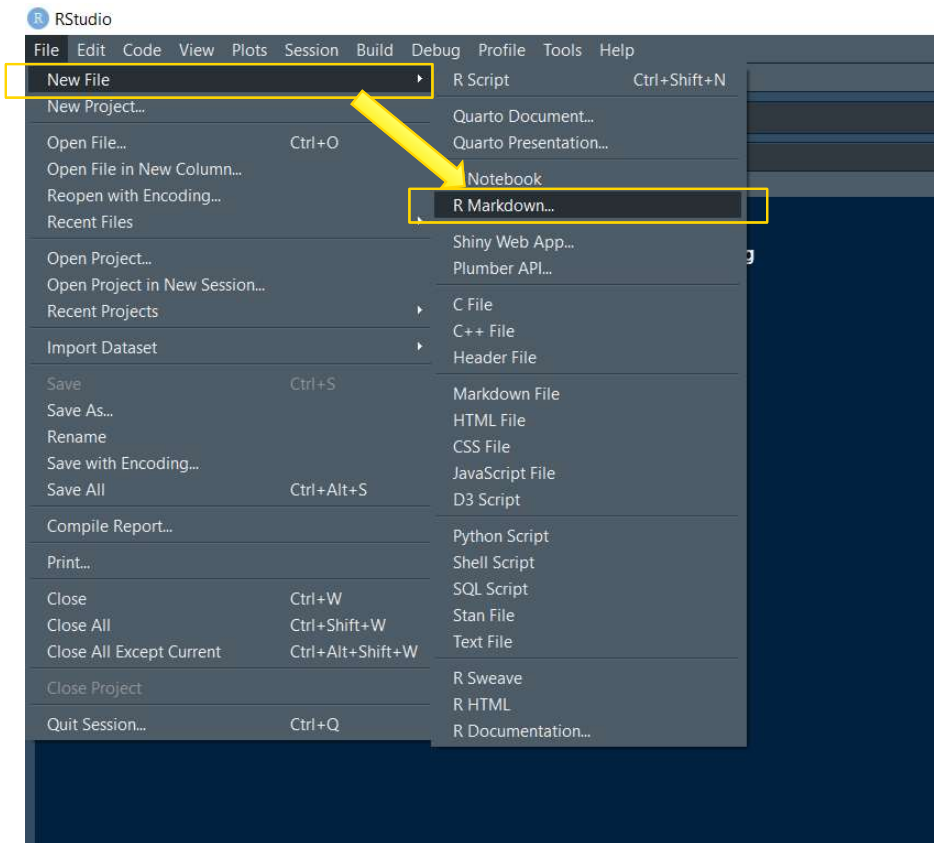


## Step 3: making sure you can use Rmarkdown (2)



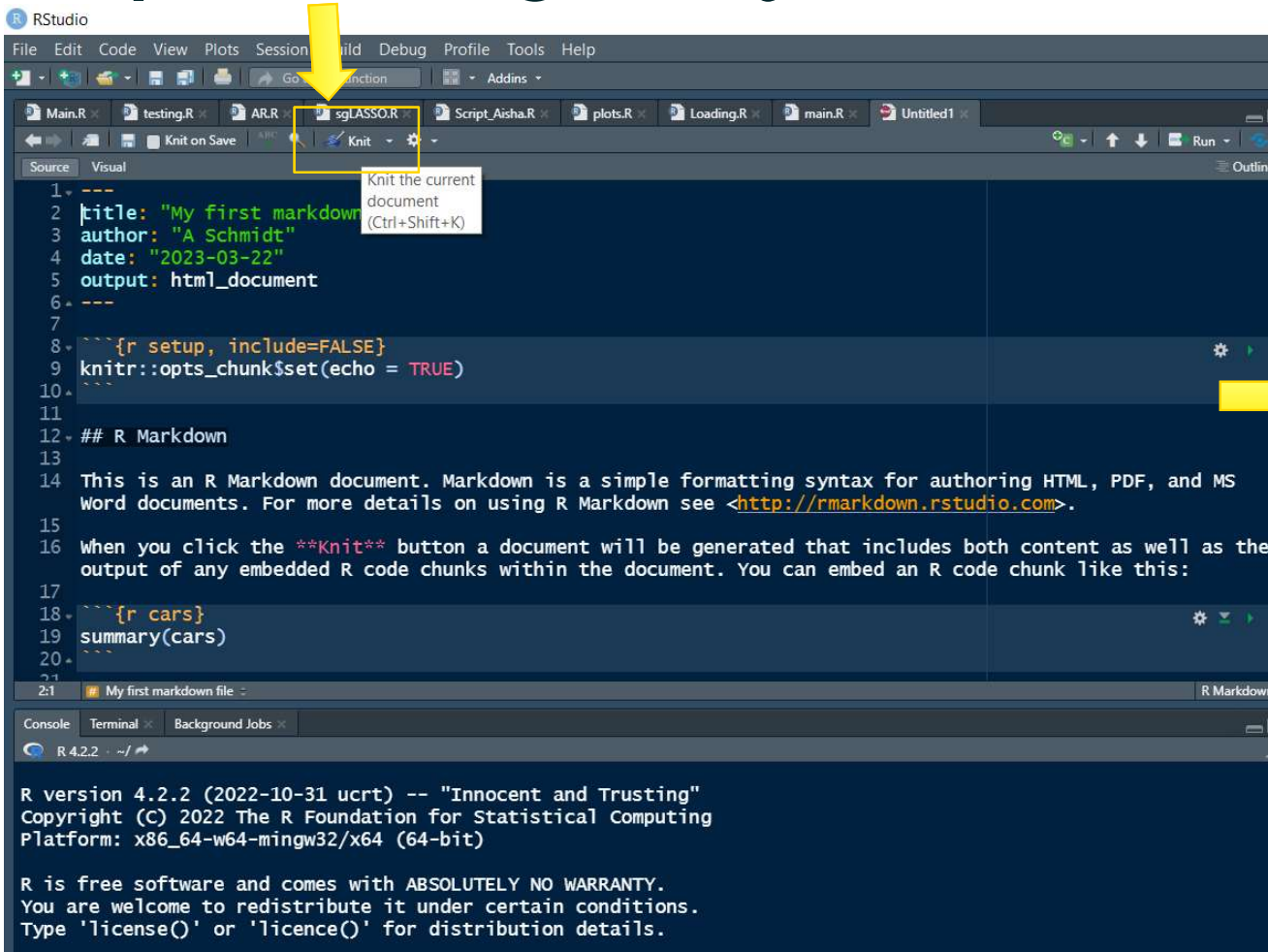
*Ezra*

## Step 3: making sure you can use Rmarkdown (3)





# Step 3: making sure you can use Rmarkdown (4)



```

1 ---
2 title: "My first markdown
3 author: "A Schmidt"
4 date: "2023-03-22"
5 output: html_document
6 ---
7
8 ```{r setup, include=FALSE}
9 knitr::opts_chunk$set(echo = TRUE)
10 ```
11
12 ## R Markdown
13
14 This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS
15 Word documents. For more details on using R Markdown see <http://rmarkdown.rstudio.com>.
16
17 When you click the Knit button a document will be generated that includes both content as well as the
18 output of any embedded R code chunks within the document. You can embed an R code chunk like this:
19
20 ```{r cars}
21 summary(cars)
22 ```
  
```

```

R version 4.2.2 (2022-10-31 ucrt) -- "Innocent and Trusting"
Copyright (C) 2022 The R Foundation for Statistical Computing
Platform: x86_64-w64-mingw32/x64 (64-bit)

R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.
  
```

This is the compiled file

FirstMarkdownFile.html Open in Browser Find

## My first markdown file

A Schmidt  
2023-03-22

## R Markdown

This is an R Markdown document. Markdown is a simple formatting 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(cars)
```

	speed	dist
## Min.	4.0	2.00
## 1st Qu.	12.0	26.00
## Median	15.0	36.00
## Mean	15.4	42.98
## 3rd Qu.	19.0	56.00
## Max.	25.0	120.00

## Including Plots

You can also embed plots, for example:



# What is next?

- If everything went well, you should be able to compile html and pdf files using Rmarkdown;
- If that did not work, then try to check google to see what went wrong;
- If you still have problems, send me an e-mail telling a whole story: what is your operational system, what you managed to get working, what error you found and what you did so far to solve it. Screenshots help. :)



## Useful links

- [https://rmarkdown.rstudio.com/authoring\\_quick\\_tour.html](https://rmarkdown.rstudio.com/authoring_quick_tour.html)
- <https://rmarkdown.rstudio.com/docs/>
- <https://bookdown.org/yihui/rmarkdown/installation.html>

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Bedankt  
Thank you

See you on the workshop!

*Erasmus*