

Installing R and RStudio

Installing R

Go to <https://cloud.r-project.org/>. You want to download the latest version of R (4.2.2).

- ▶ If you are using a Mac, click “Download R for macOS” and then select the right version of R. You will need to select the version corresponding to your specific version of macOS, as well as whether you have an Intel or Apple Silicon Mac.
- ▶ If you are using Windows, click “Download R for Windows”, then click “base”, and click the download link.
- ▶ If you are using Linux, click on the link corresponding to your Linux distribution, and then follow the instructions.

Once downloaded, open up the installer like any other piece of software and follow the instructions to install.

Installing RStudio

Go to <https://posit.co/download/rstudio-desktop/#download>

Download RStudio for your system. This should be as simple as clicking the button that looks like this (I have a Mac).

Step 2: Install RStudio Desktop

DOWNLOAD RSTUDIO DESKTOP FOR MAC

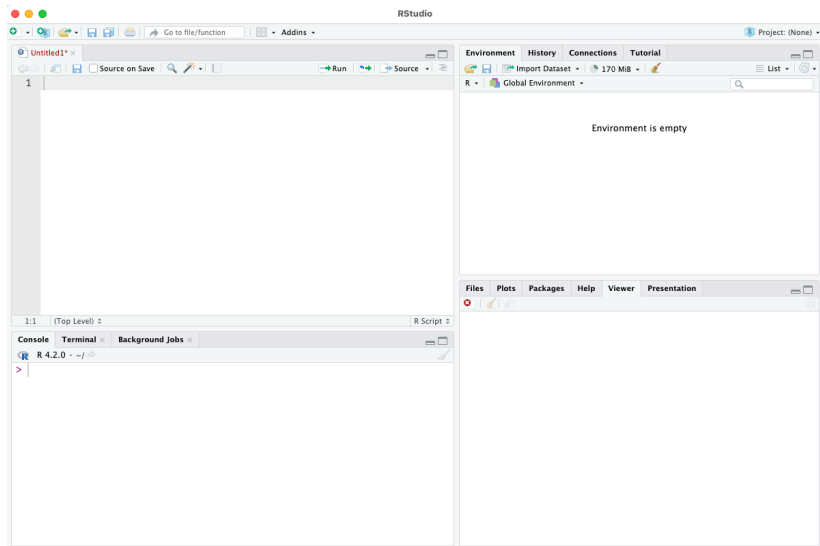
Size: 365.70MB | [SHA-256: FD4BEBB5](#) | Version: 2022.12.0+353 |

Released: 2022-12-15

You do not need to install R again. Open the software installer once it finishes downloading and follow instructions.

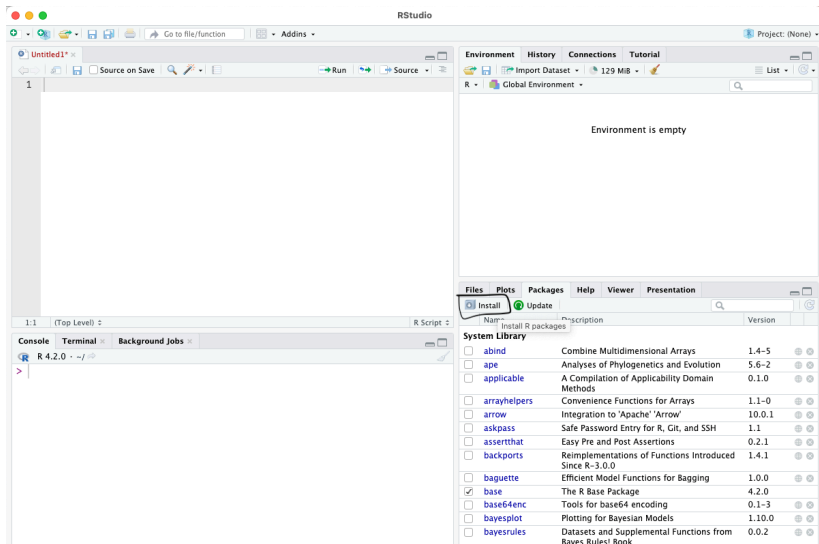
Open RStudio

It will look something like this when opened



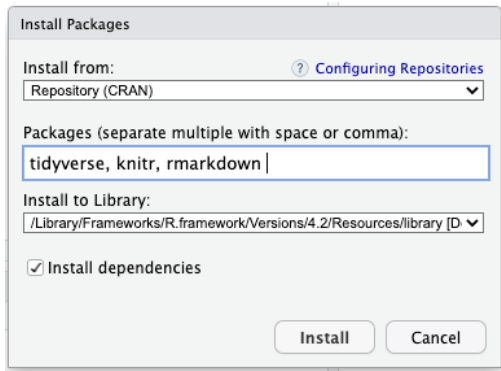
Install Packages (Point and Click way)

Click on the “Install” button in the Packages tab.



Install Packages (Point and Click way)

A dialog box will pop up. Add the packages listed in this screenshot and click Install. If any prompts pop up in the console, type the word yes and hit Enter.



Install Packages (typing code way)

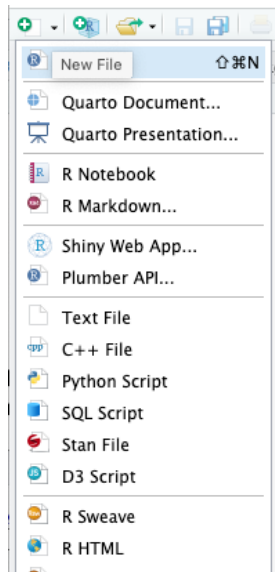
For future reference, you can always install packages by using the `install.packages()` function. Here is an example of what that looks like. You only ever have to install a package once.

A screenshot of an R console window. The window has a title bar with three tabs: "Console", "Terminal", and "Background Jobs". The "Console" tab is active. The console shows the R version "R 4.2.0" and the current directory "~". The command being entered is `> install.packages(c("tidyverse", "knitr", "rmarkdown"))`.

```
R 4.2.0 · ~/   
> install.packages(c("tidyverse", "knitr", "rmarkdown"))
```

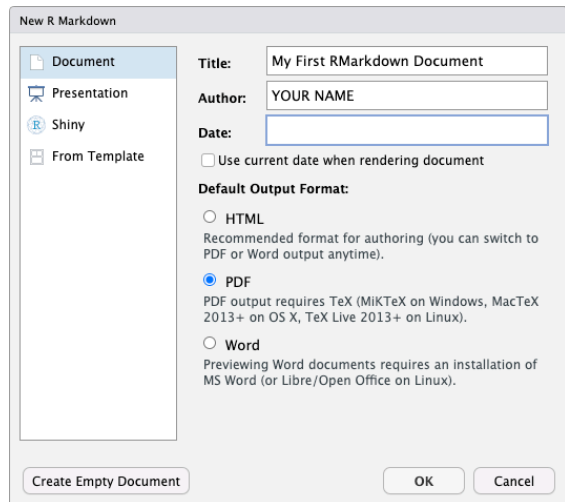
RMarkdown

Open up the Script menu, which is the little icon with a plus sign in the top left corner. Click on “R Markdown...”



Creating an RMarkdown File

A dialog box will open up that looks like the picture. Change the title and author to “My First RMarkdown Document” and your name. Change the default Output format to PDF. Hit OK.



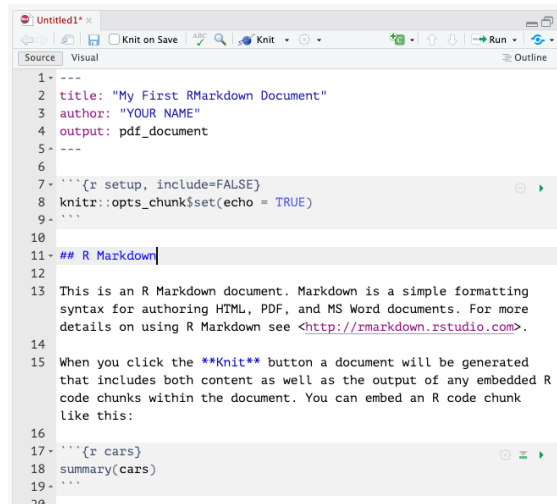
The image shows a dialog box titled "New R Markdown". On the left is a sidebar with four options: "Document" (selected with a document icon), "Presentation" (with a presentation screen icon), "Shiny" (with an R logo icon), and "From Template" (with a folder icon). The main area of the dialog contains the following fields and options:

- Title:** A text box containing "My First RMarkdown Document".
- Author:** A text box containing "YOUR NAME".
- Date:** An empty text box.
- ☐ Use current date when rendering document
- Default Output Format:**
 - ☐ HTML
Recommended format for authoring (you can switch to PDF or Word output anytime).
 - ☒ PDF
PDF output requires TeX (MiKTeX on Windows, MacTeX 2013+ on OS X, TeX Live 2013+ on Linux).
 - ☐ Word
Previewing Word documents requires an installation of MS Word (or Libre/Open Office on Linux).

At the bottom of the dialog are three buttons: "Create Empty Document", "OK", and "Cancel".

Creating an RMarkdown File

You'll see an output that looks something like this. Click the Knit button. Save the file to a directory with an appropriate name. Keep the .Rmd extension. The result once R finishes will be a pdf document.



```
1 ---
2 title: "My First RMarkdown Document"
3 author: "YOUR_NAME"
4 output: pdf_document
5 ---
6
7 ```{r setup, include=FALSE}
8 knitr::opts_chunk$set(echo = TRUE)
9 ```
10
11 ## R Markdown
12
13 This is an R Markdown document. Markdown is a simple formatting
14 syntax for authoring HTML, PDF, and MS Word documents. For more
15 details on using R Markdown see <http://rmarkdown.rstudio.com>.
16
17 When you click the Knit button a document will be generated
18 that includes both content as well as the output of any embedded R
19 code chunks within the document. You can embed an R code chunk
20 like this:
21
22 ```{r cars}
23 summary(cars)
24 ```
```