

GETTING STARTED IN RSTUDIO CLOUD

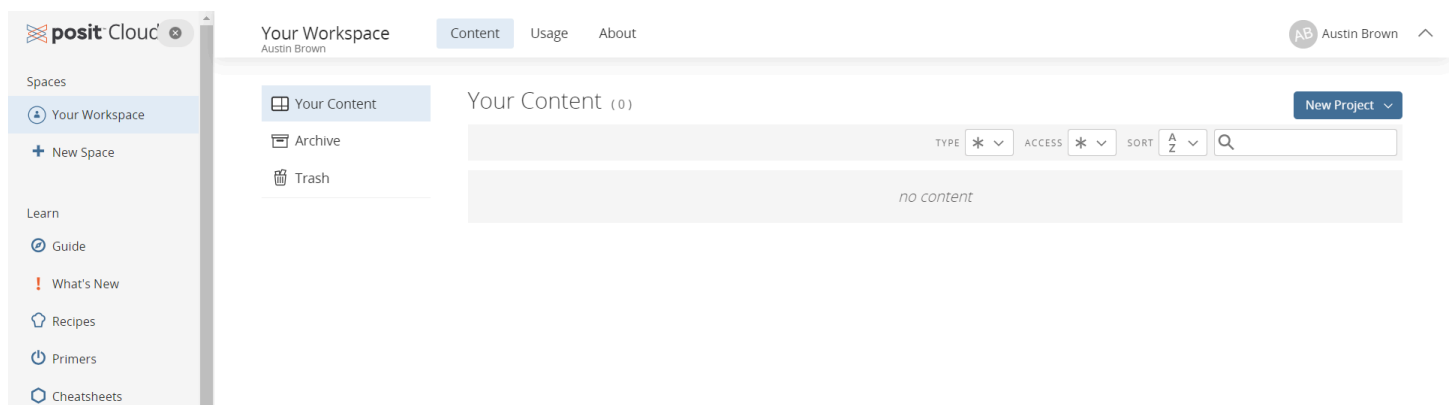


Accessing RStudio Cloud

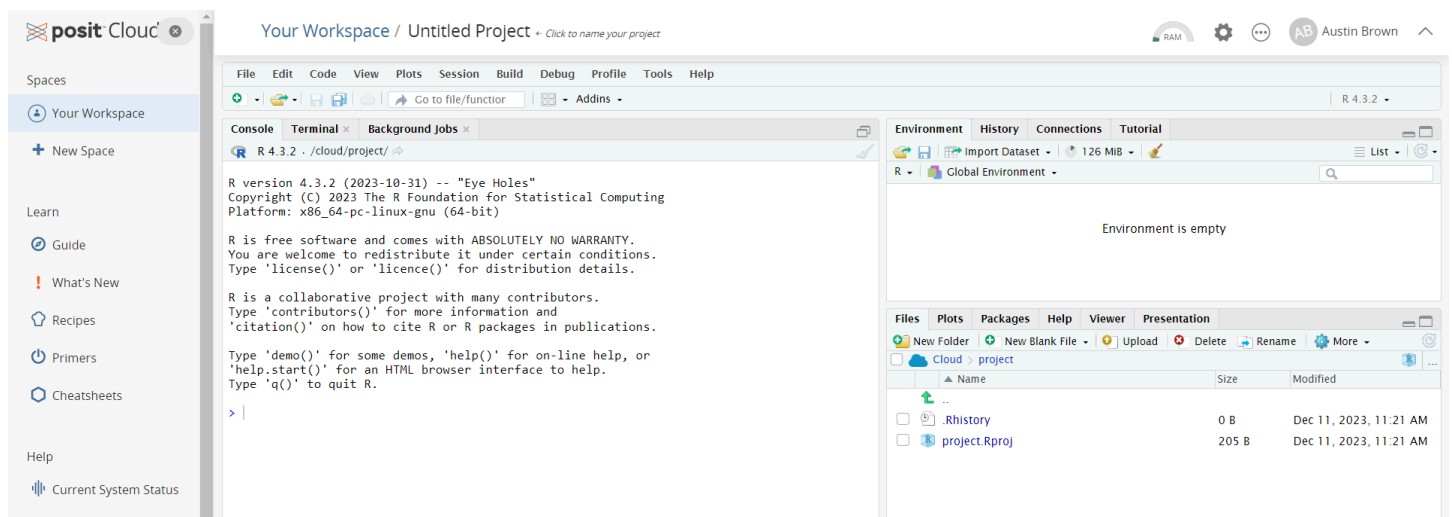
- While you can download RStudio to your computer for free at this [link](#), for my courses, I am going to be using RStudio in my browser through Posit Cloud, which we can access for free or low cost at this [link](#)

Creating a New Project

- When you sign into Posit Cloud, your screen should look like this:



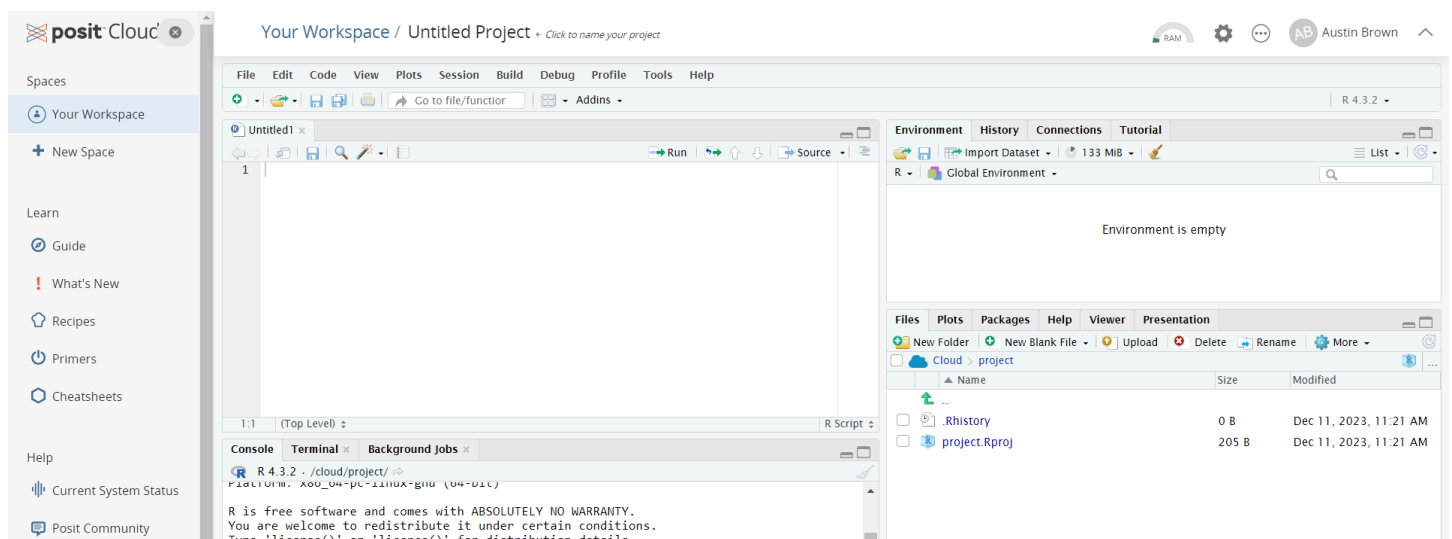
- Click the “New Project” Button, and from the dropdown menu, select “New RStudio Project”
- After the screen finishes loading, you will have created a new RStudio session, which looks like this:



- You can change the name of your project from “Untitled Project” to anything you like by clicking on the name “Untitled Project” at the top of your screen

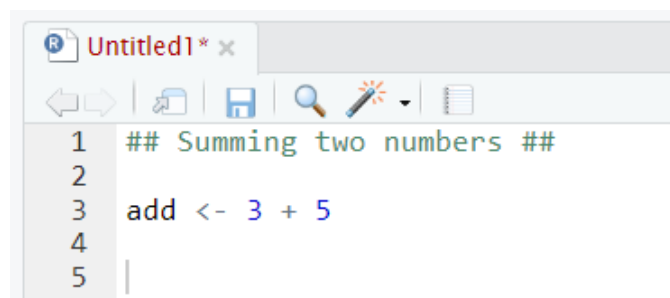
Opening a Script

- Because we often like to save our code for future use, we can make use of R Scripts (which is effectively a text editor). To open a new R Script, click on the “+” in the upper lefthand corner of the RStudio screen.
- In the dropdown menu, select the top option “R Script”. In doing so, a new window will appear and your screen should appear as:

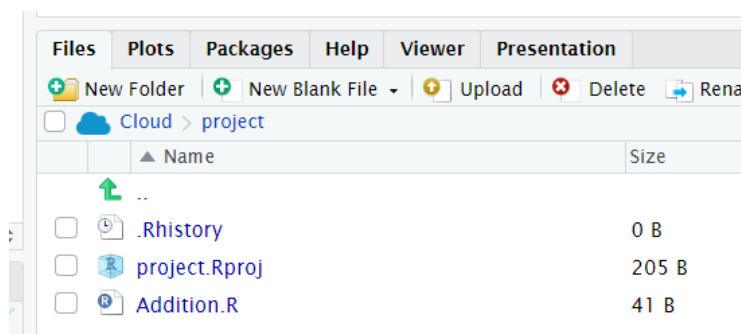


- In the R Script, we can write and modify code without actually executing it
- I recommend making comments/notes to ourselves about what the code is doing (or supposed to be doing)
 - This is especially useful when working in teams
- Suppose I want to write code to save the result of $3 + 5$ as “add”
 - But I also want to make a note that I’m summing two values

- To do so, I will write the below code:



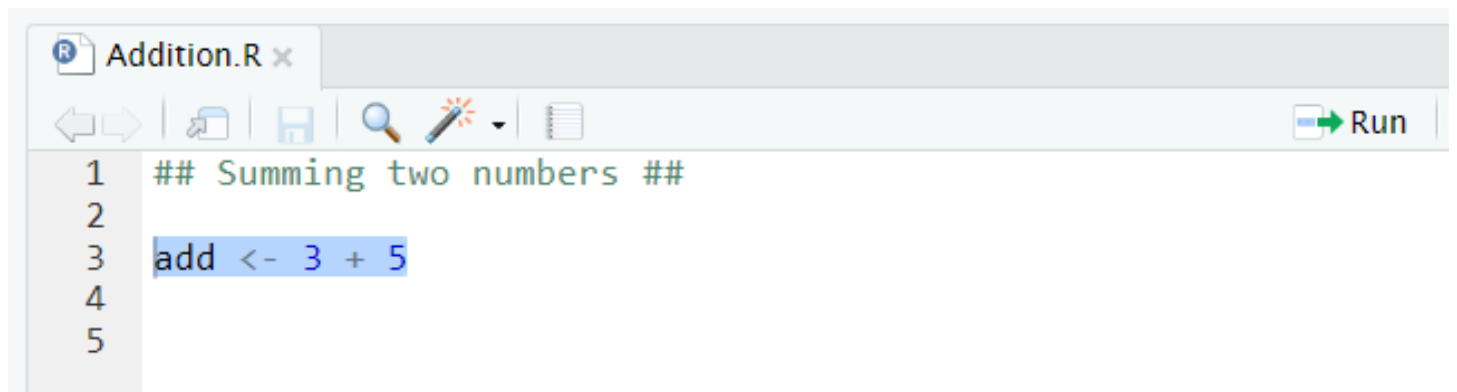
- Placing a `#` symbol at the beginning of a new line indicates to R that you are making a note or comment.
 - Note, you don't have to place two nor do you have to place two at the end. That is my own personal style/preference
- Also notice, the font color of the name of the R Script file "Untitled1" changed from black to red.
 - This is a visual cue to you that the code has been modified since you first opened it.
- To save modified code, we can click the floppy disk save icon just to the left of the magnifying glass in the above figure.
 - I will save mine as "Addition". Notice when we do so, in the bottom right quadrant of the RStudio screen (with the "Files" tab highlighted), we have a new file called "Addition.R" contained in our Project file folder:



- Now, if we ever close our Addition script, we can open it right back up by clicking on the "Addition.R" file name inside of our Project file folder

Executing Code

- Now that we've written a little bit of code, how do we get RStudio to actually run it? There are multiple ways:
 - With your cursor, highlight the code you'd like to run and click the "Run" button:

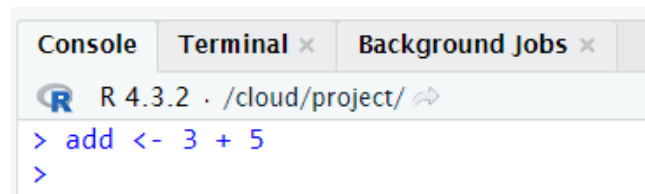


```
1 ## Summing two numbers ##
2
3 add <- 3 + 5
4
5
```

- Instead of clicking the “Run” button with the code highlighted, you can also use the keyboard shortcut:
 - CNTRL + ENTER on a PC
 - CMND + RETURN on a Mac
- You can also simply have your cursor placed in the line of code you’d like to execute and use the keyboard shortcuts as well!

What Happens When Executing Code

- When we run code, like we just did to save the “add” object, a few different things can occur down in the console:
 - The code we just ran executed and output nothing, like so:



```
R 4.3.2 · /cloud/project/
> add <- 3 + 5
>
```

- This means that the code executed successfully! Nothing is output because we are assigning the output to a new object called “add”
 - We also know it executed successfully because we didn’t receive an **ERROR** or **WARNING** message, which are also two things that can occur when executing code:
 - An **ERROR** message means the code did not execute at all
 - A **WARNING** message means the code executed, but there is something about the way it executed that we should be mindful of
- When the code executes, we can also receive output of some kind
 - For example, if you highlight just 3 + 5 and execute that code, the value 8 is printed to the console.