# Introduction to R

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# What is R?

R is a programming language with an emphasis on statistics and statistical analysis

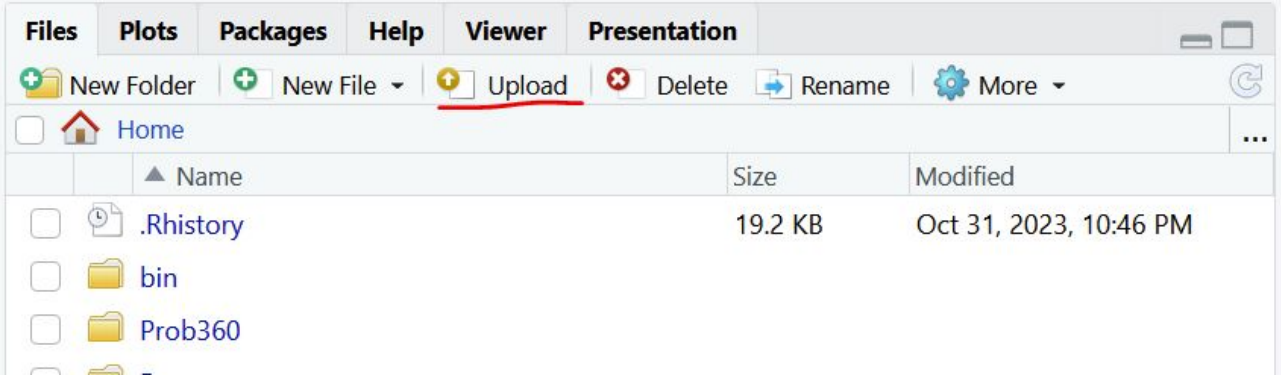
Commonly used to analyze any data; applications in modern data science and machine learning

# Getting to the Server & Uploading Files

Go to [r.amherst.edu](r.amherst.edu)

Click “+ New Session”

Press the “**Upload**” button and select the file from your computer



# Rendering & Running Code Chunks

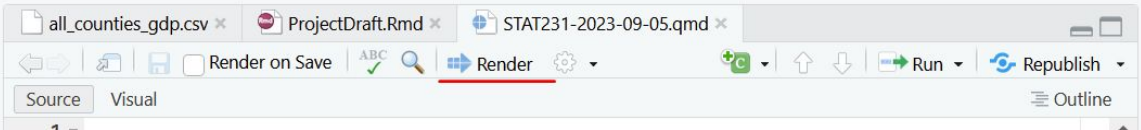
Press the “**Render**” button to create a PDF from your code

If you want to run just some of the code you have options:

Highlight the code to run and press “Run”

Press “Run” while on the line of the code you want to run

Press the green play button above the code

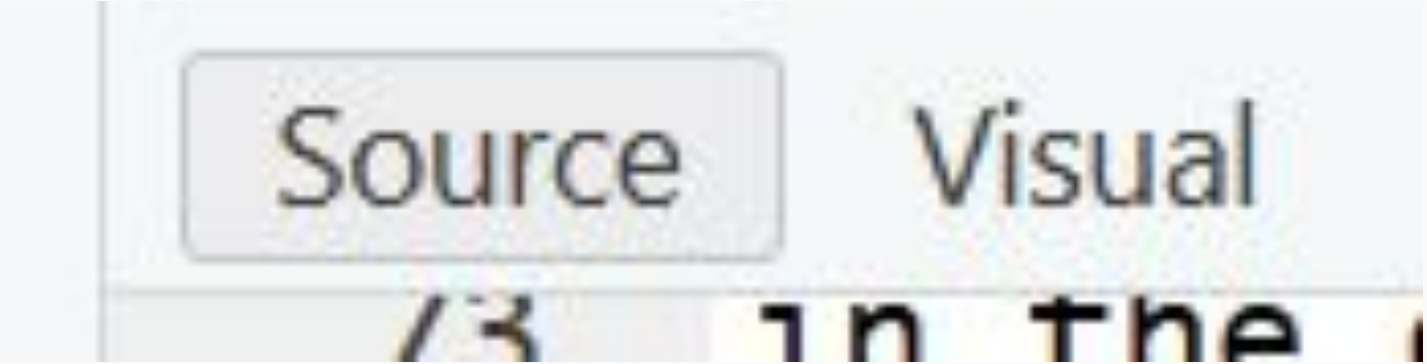


# Exporting/Saving PDFs

After rendering the file you will be able to save it as a PDF to submit

# Visual vs Source Editor

You can choose how you view the files while working on them

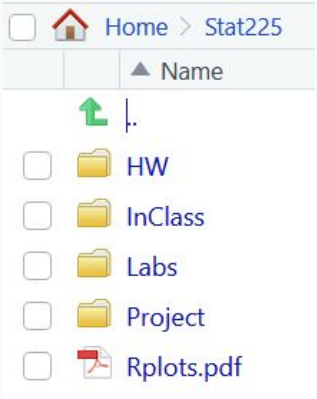


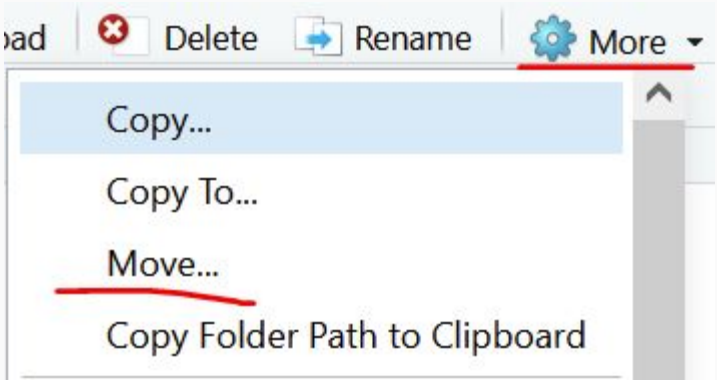
# File Organization

Keep one folder for all files from a class

Can help to nest folders

Ability to move files is hidden under “More” near the upload button



# Rmarkdown text vs code

Text will have a white background and not be in a code “chunk”

Code will be inside a “chunk” with “```{r}” at the start and “```” at the end

Those aren’t apostrophes, they are backticks!  They can be found at the top left of your keyboard.

````
in the console.

Please select `ggplot2` as your Graphics System.
You and your partner will copy and paste your code into the code chunk below.


```{r}
#| label: fig-ourfig
#| fig.cap: "Education effect on wages"
#| fig.height: 6
````
````

# Adding/Running code chunks

Click the arrow next to the  symbol

There should be a drop down menu, select `R` to add an R code chunk

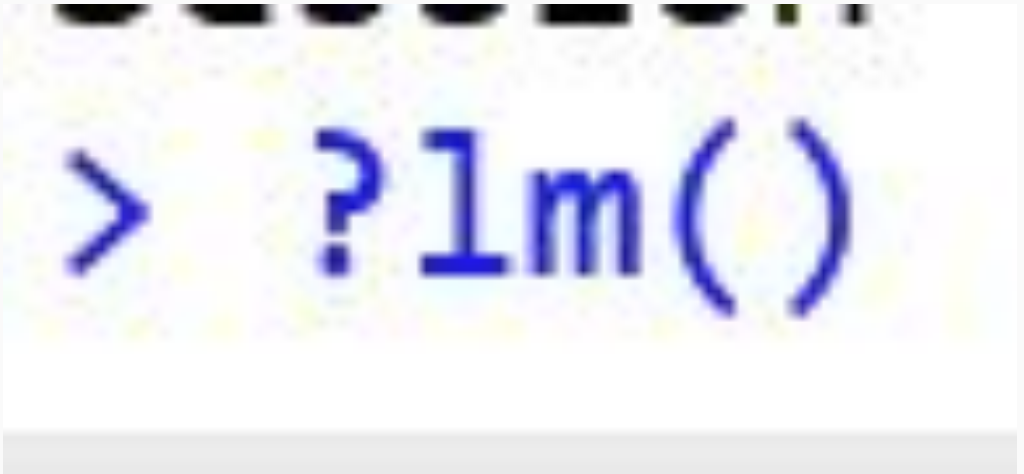
Clicking the arrow  in the top-right corner of a code chunk will “run” or execute that code chunk

Or, there is a `Run` button next to the  gives options for running multiple chunks at a time

# Troubleshooting Options

Using the ? in front of a function will pull up its documentation

You shouldn’t be afraid to google an error message



# What is a package/library

A collection of functions someone has compiled for our use

You won't need to install them, but you will have to tell R you are using them with the "**library()**" command

````
```{r}
#| label: setup
#| include: false
# install.packages(mosaic)
library(mosaic)
library(tidyverse)
```
````