

RStudio, Git, & GitHub

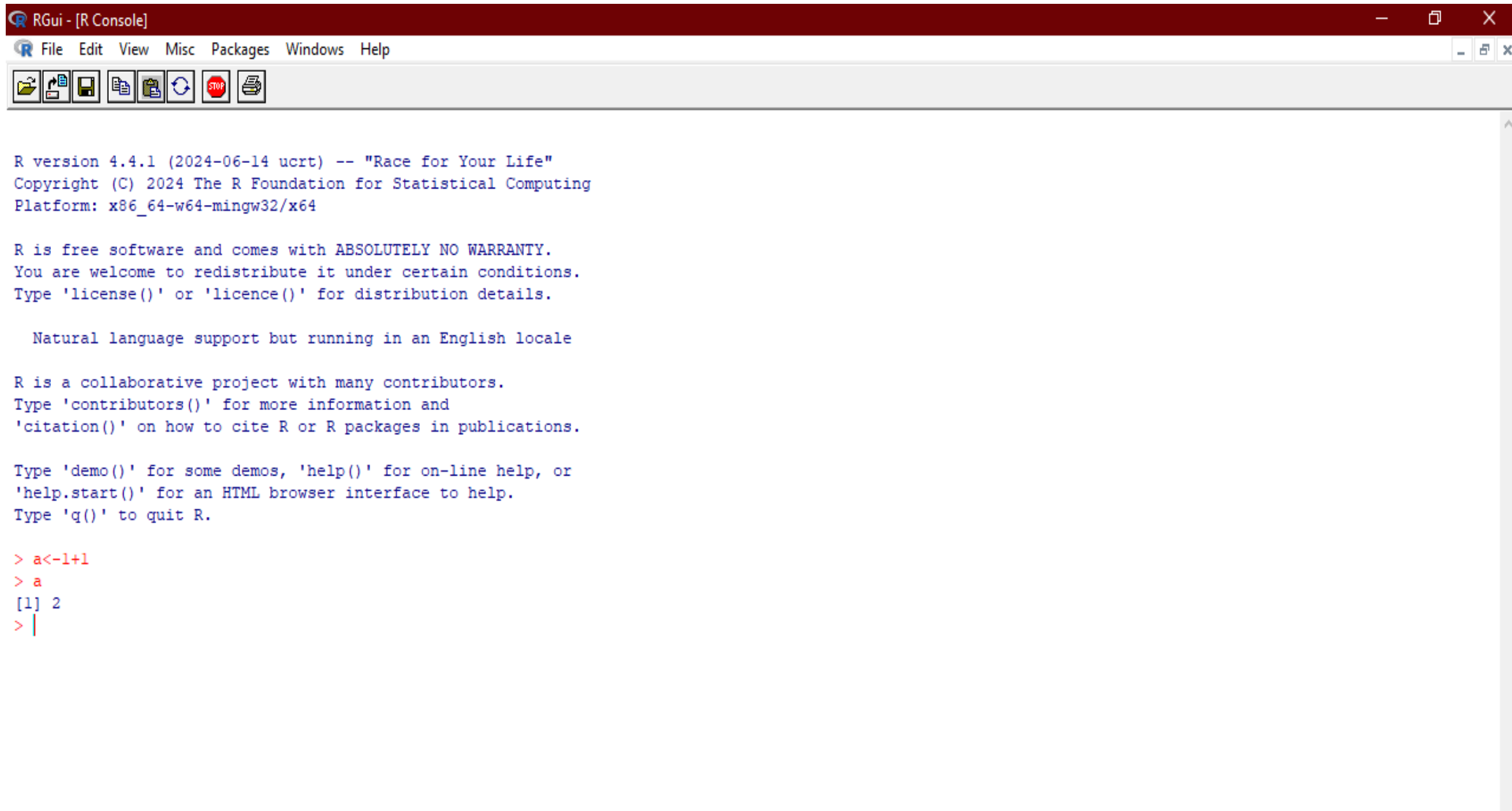
R & RStudio

What is R?

- *R* is a language and environment for statistical computing and graphics.

What is RStudio?

- It is a free and open-source integrated development environment (IDE) for *R*.



```
R version 4.4.1 (2024-06-14 ucrt) -- "Race for Your Life"
Copyright (C) 2024 The R Foundation for Statistical Computing
Platform: x86_64-w64-mingw32/x64

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.

Natural language support but running in an English locale

R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

> a<-1+1
> a
[1] 2
> |
```

DSCI_101 - main - RStudio

File Edit Code View Plots Session Build Debug Profile Tools Help

Go to file/function

intro_to_R_classwork.R x intro_to_R.Rmd x

Run on Save Run Document

Source Visual Outline

```
1 ---
2 title: "DSCI 101"
3 author: "Widad Abdalla"
4 date: "2024-01-19"
5 output:
6   learnr::tutorial:
7     progressive: true
8     allow_skip: true
9 runtime: shiny_prerendered
10 ---
11 # Intro to R |
12
13 ```{r setup, include=FALSE}
14 library(learnr)
15 x <- c(4, 1, 3, 8, 6, 7, 5, 3, 0, 9)
16 d <- factor(c("A", "A", "B", "C", "A", "B"))
17 mat <- matrix(c(1:9), ncol = 3, byrow = TRUE)
18 l <- list(3, rep(0, 3), matrix(c(1:4), ncol = 2))
19 df <- data.frame(V1 = 1:10, V2 = rep(1, 10), V3 = seq(1, 20, 2))
20 ```
21
```

11:14 Intro to R R Markdown

Environment History Connections Git Tutorial

Global Environment

Environment is empty

Files Plots Packages Help Viewer Presentation

OneDrive - Loyola University Chicago > Desktop > DSCI_101

	Name	Size	Modified
<input type="checkbox"/>	..		
<input type="checkbox"/>	.gitignore	44 B	Aug 25,
<input type="checkbox"/>	data		
<input type="checkbox"/>	DSCI_101.Rproj	218 B	Aug 25,
<input type="checkbox"/>	instructor_notes		
<input type="checkbox"/>	student_notes		
<input type="checkbox"/>	syllabus		

Console Terminal Render Background Jobs

R 4.3.2 · C:/Users/wabdalla/OneDrive - Loyola University Chicago/Desktop/DSCI_101/

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'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

> |

Installing R & RStudio

In your student notes,

see pages 1-2 for windows , and

see pages 3-5 for mac

Git

Git is a version control system that helps you keep track of changes in your code or any other files. It's like a time machine for your work. Git allows you to:

- Track Changes
- Collaborate with Others
- Create Backups
- Work Offline

GitHub

GitHub is a web-based platform that uses Git for version control. It's like a social network for programmers and a hosting platform for Git repositories. Here's what you can do with GitHub:

- Store Code in the Cloud
- Collaborate with Others
- Share Your Work
- Issue Tracking

Installing Git

See page 6 of student notes on how to install Git.

See the video if you run into any issue

RStudio and GitHub

see pages 7-8 in student notes
for how to clone my repository
into your RStudio

Things for you to do before next class:

- Read the RStudio, Git, & GitHub document.
- Install R & RStudio
- Install Git
- Clone the class repository (under RStudio and GitHub section)
- Take the class [survey](#)