

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
> |
```

```
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

Console Terminal Render Background Jobs

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

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> |

DSCL_101 — Desktop

Environment History Connections Git Tutorial

Import 136 MIB List

R Global Environment

Environment is empty

Files Plots Packages Help Viewer Presentation

OneDrive - Loyola University Chicago > Desktop > DSCL_101

Name	Size	Modified
..		
.gitignore	44 B	Aug 25
data		
DSCI_101.Rproj	218 B	Aug 25
instructor_notes		
student_notes		
syllabus		

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](#)