RStudio, Git, & GitHub

R & RStudio

What is R?

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

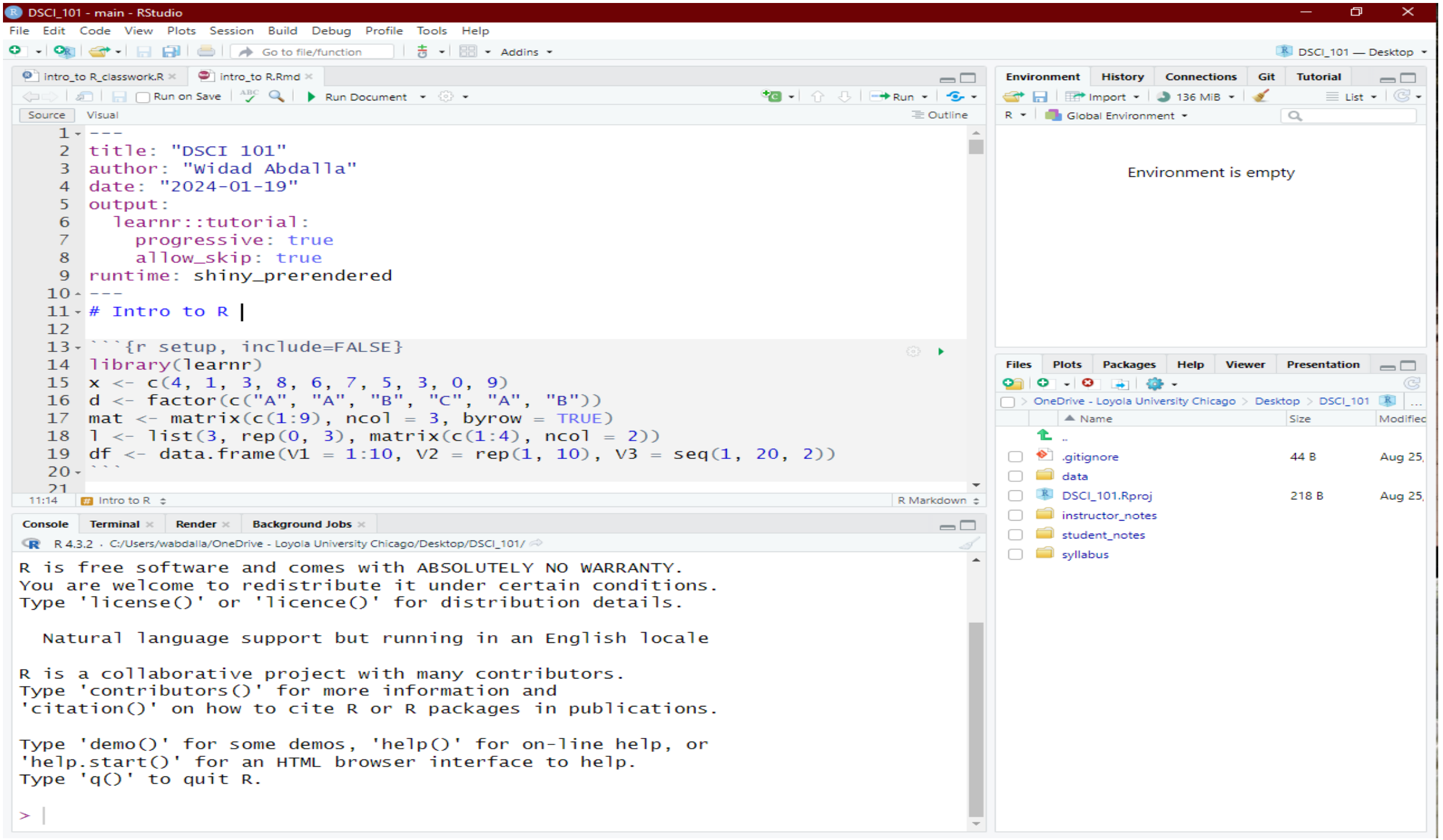
What is RStudio?

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

RGui - [R Console]

File Edit View Misc Packages Windows Help

```
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
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DSCI_101 — Desktop
intro_to R_classwork.R
intro_to R.Rmd
Run on Save
Run Document
Run
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
Console
Terminal
Render
Background Jobs
R 4.3.2 · C:/Users/wabdalla/OneDrive - Loyola University Chicago/Desktop/DSCI_101/
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>
Environment
History
Connections
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Presentation
OneDrive - Loyola University Chicago > Desktop > DSCI_101
Name
Size
Modified
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.gitignore 44 B Aug 25,
data
DSCI_101.Rproj 218 B Aug 25,
instructor_notes
student_notes
syllabus

Installing R & RStudio

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

RStudio and GitHub

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