

# Linking GitHub & R

ENTMLGY 6702

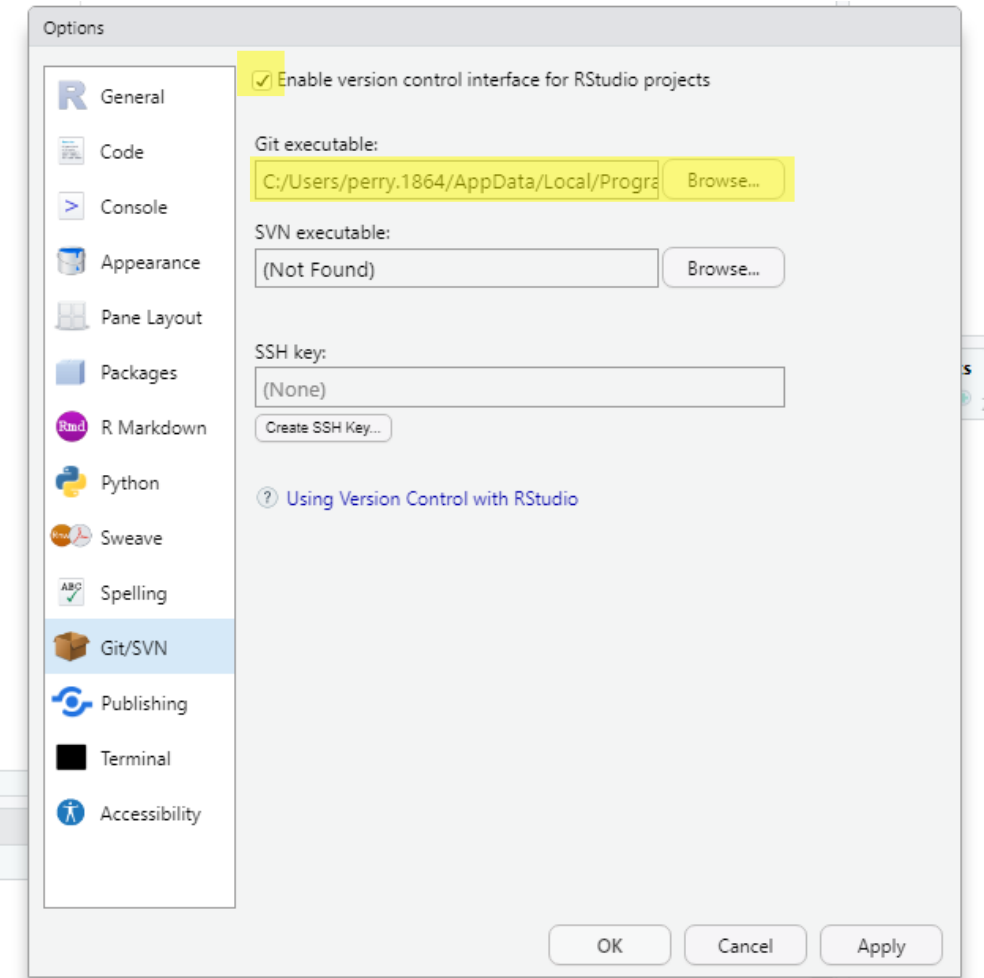
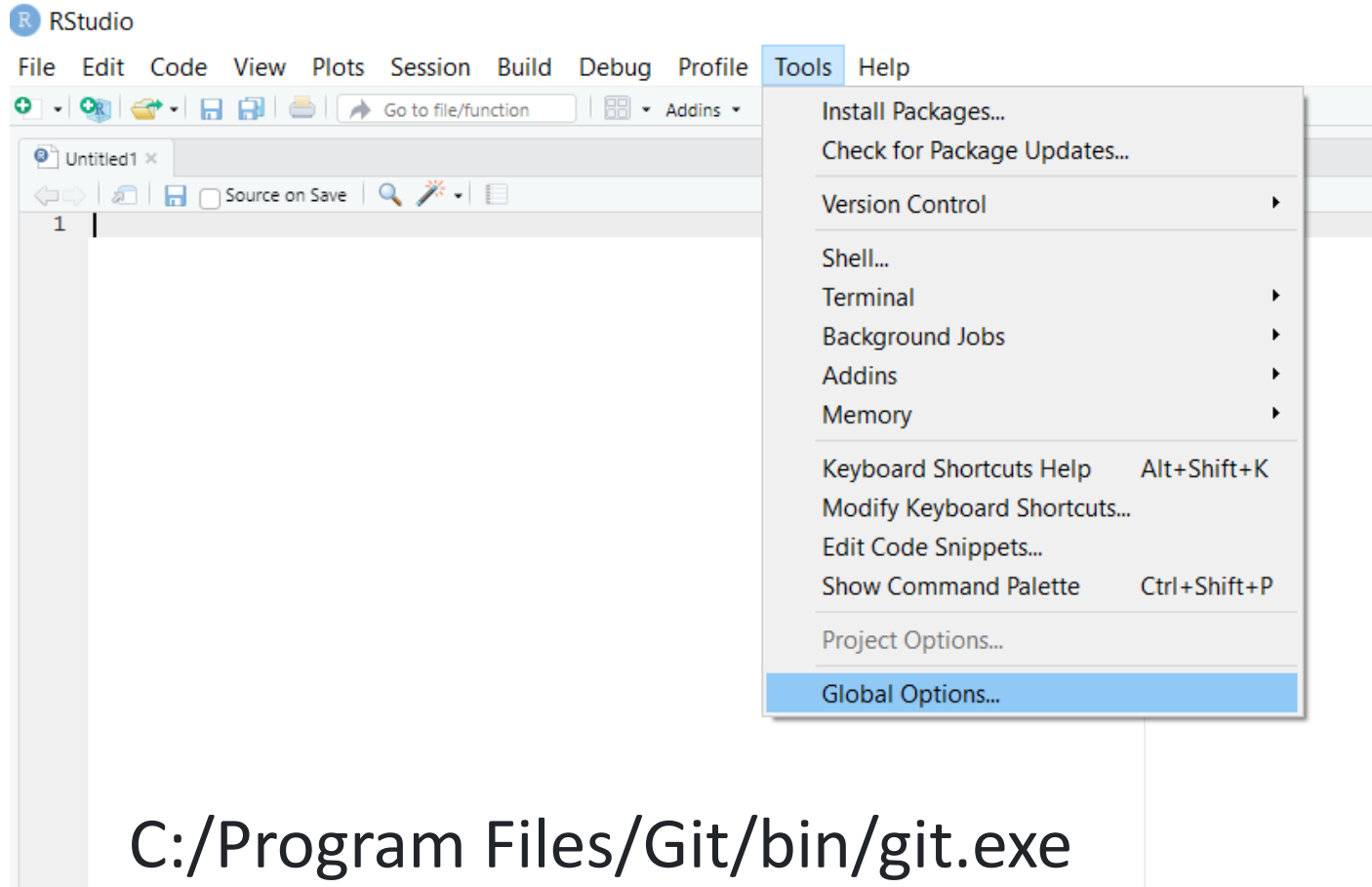
Entomological Techniques and Data Analysis



# Integrate Git in RStudio

1) Check enable version control

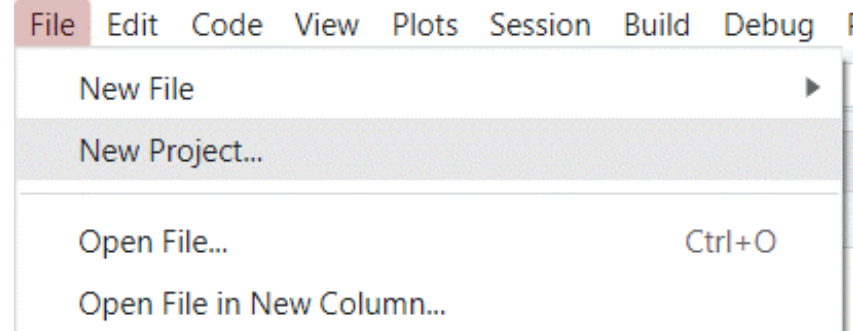
2) Set path to git.exe file



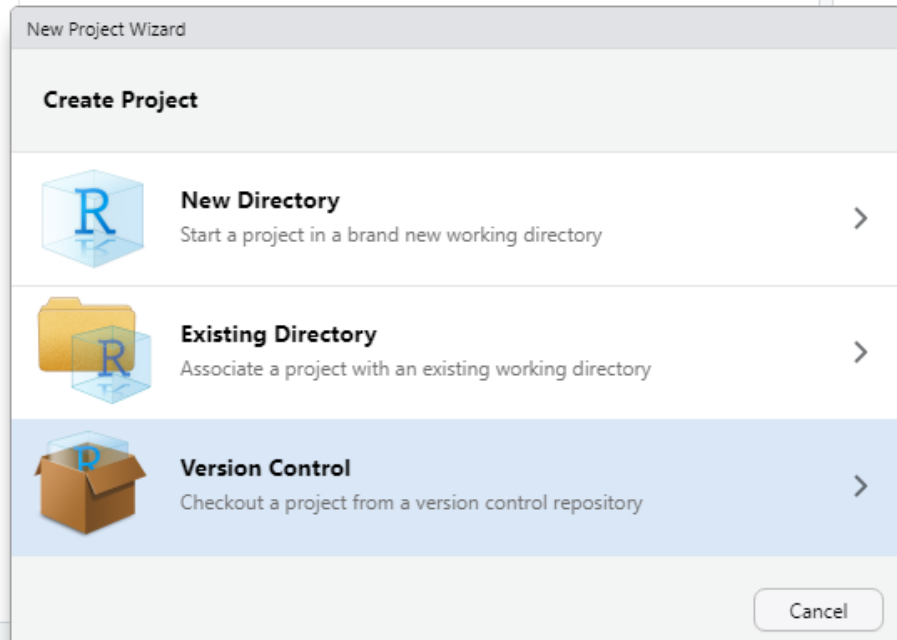
C:/Program Files/Git/bin/git.exe

# Check to make sure Git and RStudio are linked

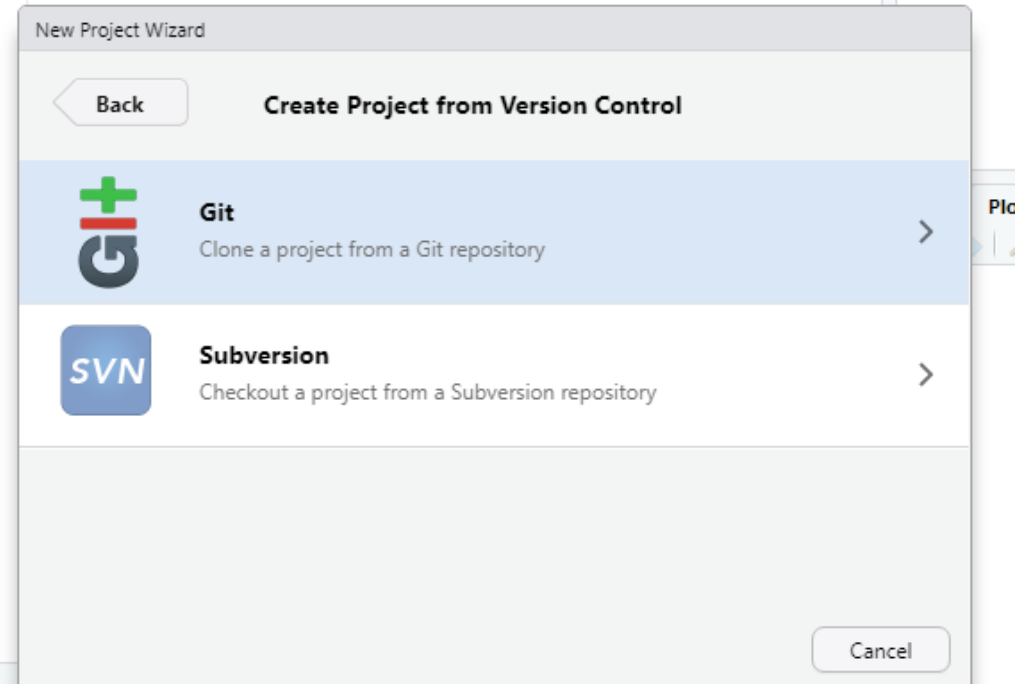
1



2



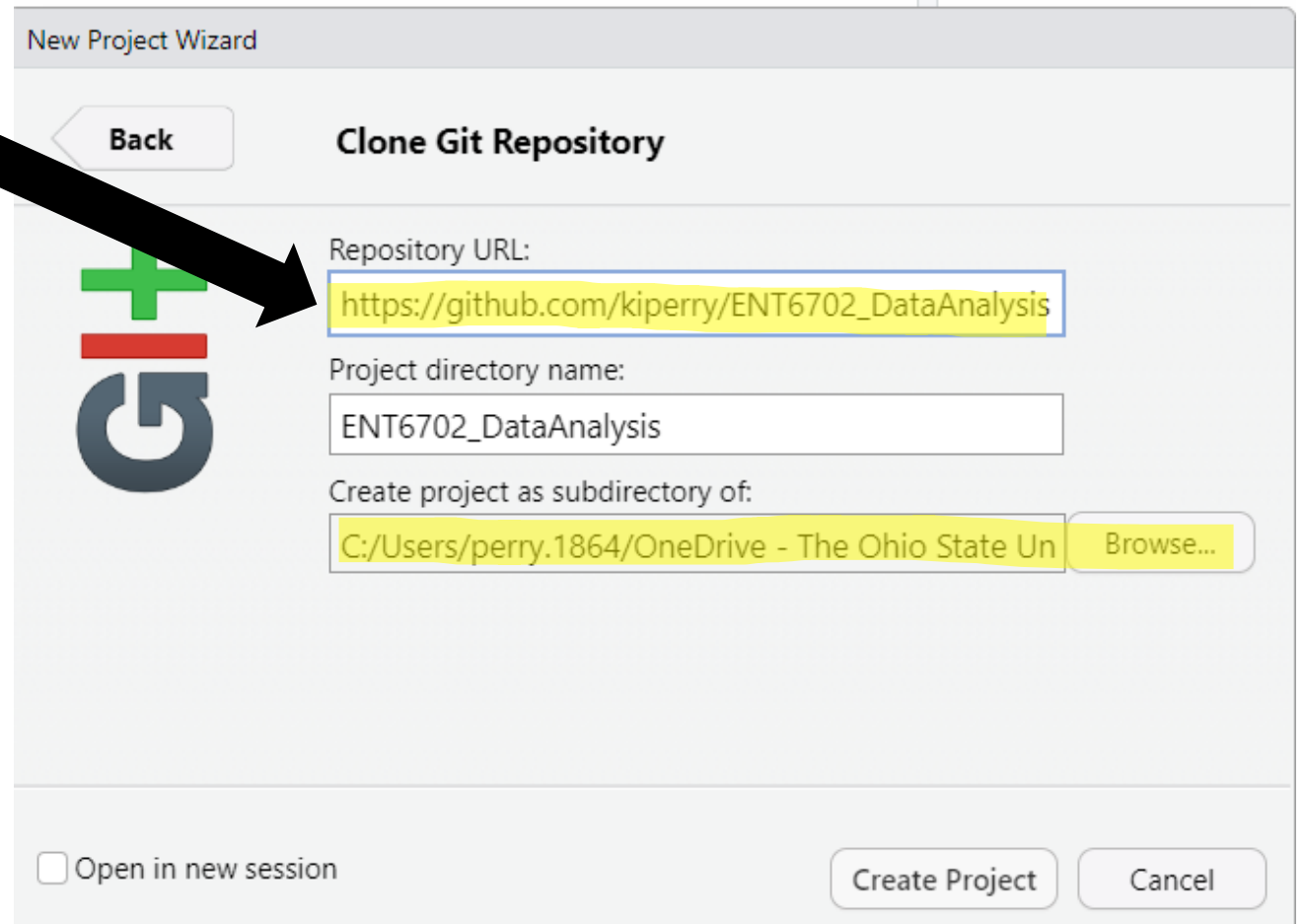
3



# Clone a repository on GitHub to your computer

Copy and paste repo link

ENT6702\_DataAnalysis



New Project Wizard

Back Clone Git Repository

Repository URL:  
`https://github.com/kiperry/ENT6702_DataAnalysis`

Project directory name:  
ENT6702\_DataAnalysis

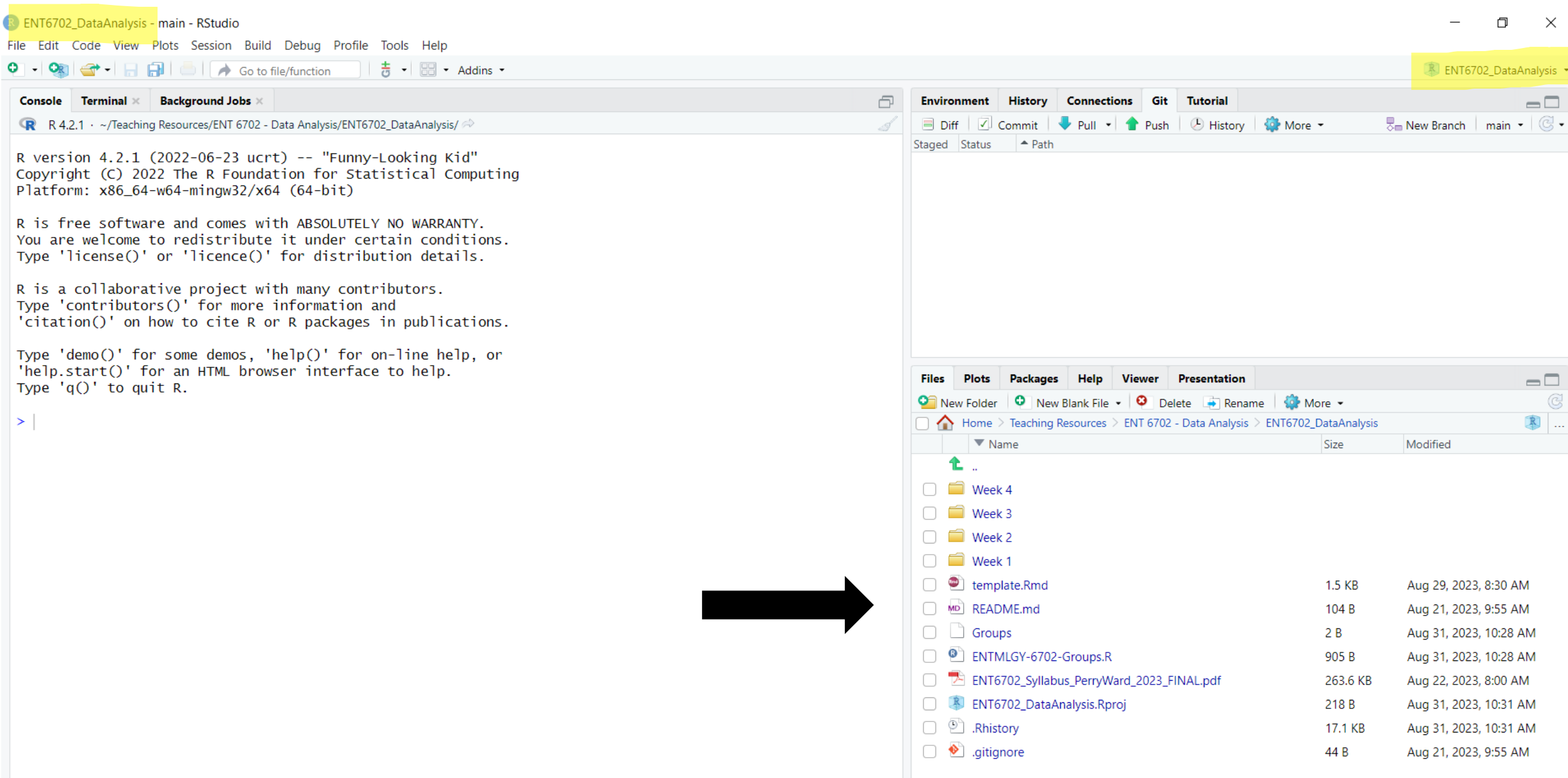
Create project as subdirectory of:  
`C:/Users/perry.1864/OneDrive - The Ohio State Un` Browse...

☐ Open in new session

Create Project Cancel

`https://github.com/kiperry/ENT6702_DataAnalysis`

# Clone a repository on GitHub to your computer



The image shows the RStudio interface with a terminal window displaying the R version and copyright information. A large black arrow points from the terminal to the right, where a file explorer view shows the contents of the cloned repository. The file explorer lists files and folders, including 'Week 4', 'Week 3', 'Week 2', 'Week 1', 'template.Rmd', 'README.md', 'Groups', 'ENTMLGY-6702-Groups.R', 'ENT6702\_Syllabus\_PerryWard\_2023\_FINAL.pdf', 'ENT6702\_DataAnalysis.Rproj', '.Rhistory', and '.gitignore'.

**RStudio Console Output:**

```
R version 4.2.1 (2022-06-23 ucrt) -- "Funny-Looking Kid"
Copyright (C) 2022 The R Foundation for Statistical Computing
Platform: x86_64-w64-mingw32/x64 (64-bit)

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.

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.

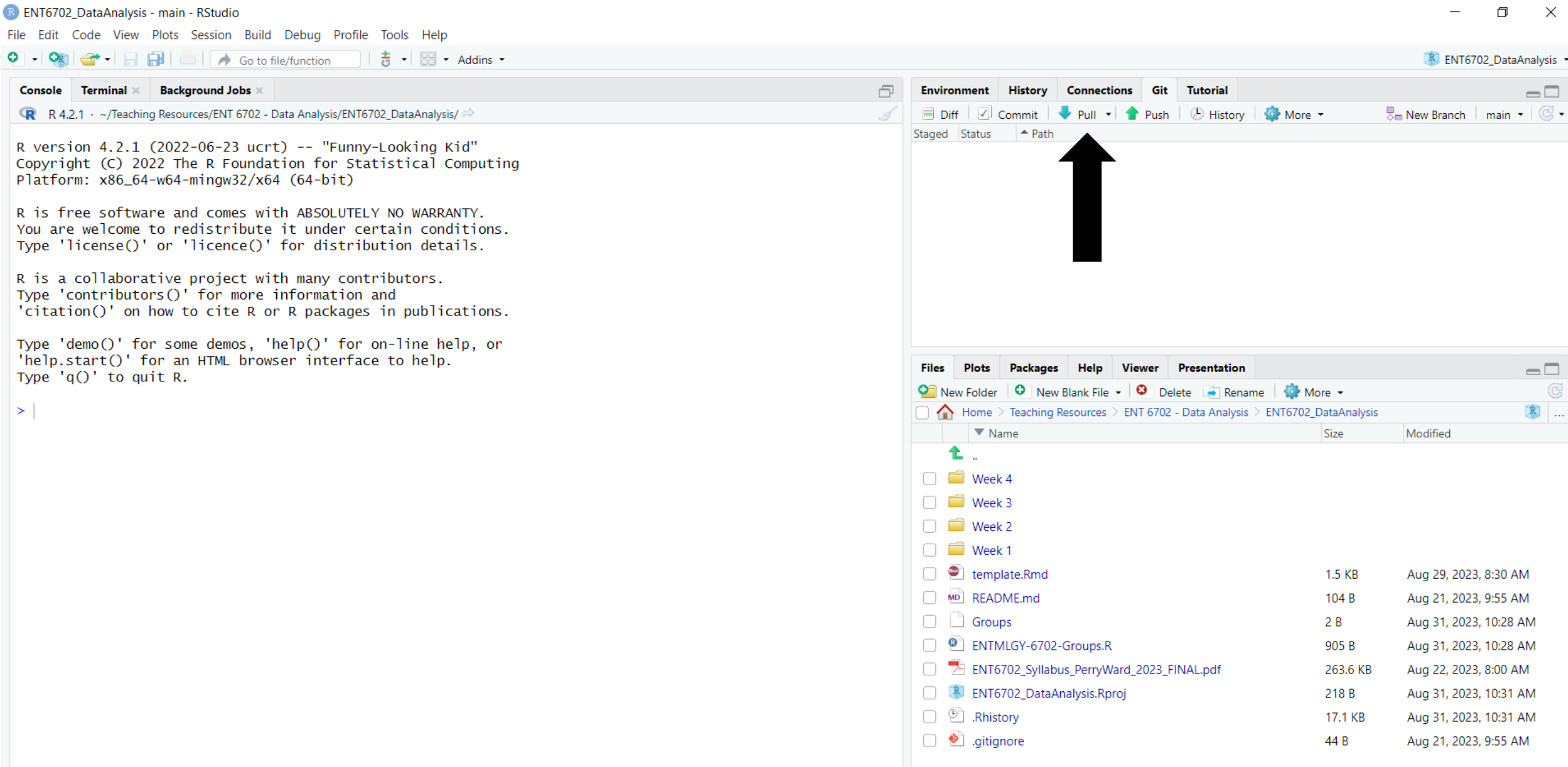
Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

> |
```

**File Explorer View:**

Name	Size	Modified
..		
Week 4		
Week 3		
Week 2		
Week 1		
template.Rmd	1.5 KB	Aug 29, 2023, 8:30 AM
README.md	104 B	Aug 21, 2023, 9:55 AM
Groups	2 B	Aug 31, 2023, 10:28 AM
ENTMLGY-6702-Groups.R	905 B	Aug 31, 2023, 10:28 AM
ENT6702_Syllabus_PerryWard_2023_FINAL.pdf	263.6 KB	Aug 22, 2023, 8:00 AM
ENT6702_DataAnalysis.Rproj	218 B	Aug 31, 2023, 10:31 AM
.Rhistory	17.1 KB	Aug 31, 2023, 10:31 AM
.gitignore	44 B	Aug 21, 2023, 9:55 AM

# Open R project and pull changes to your computer



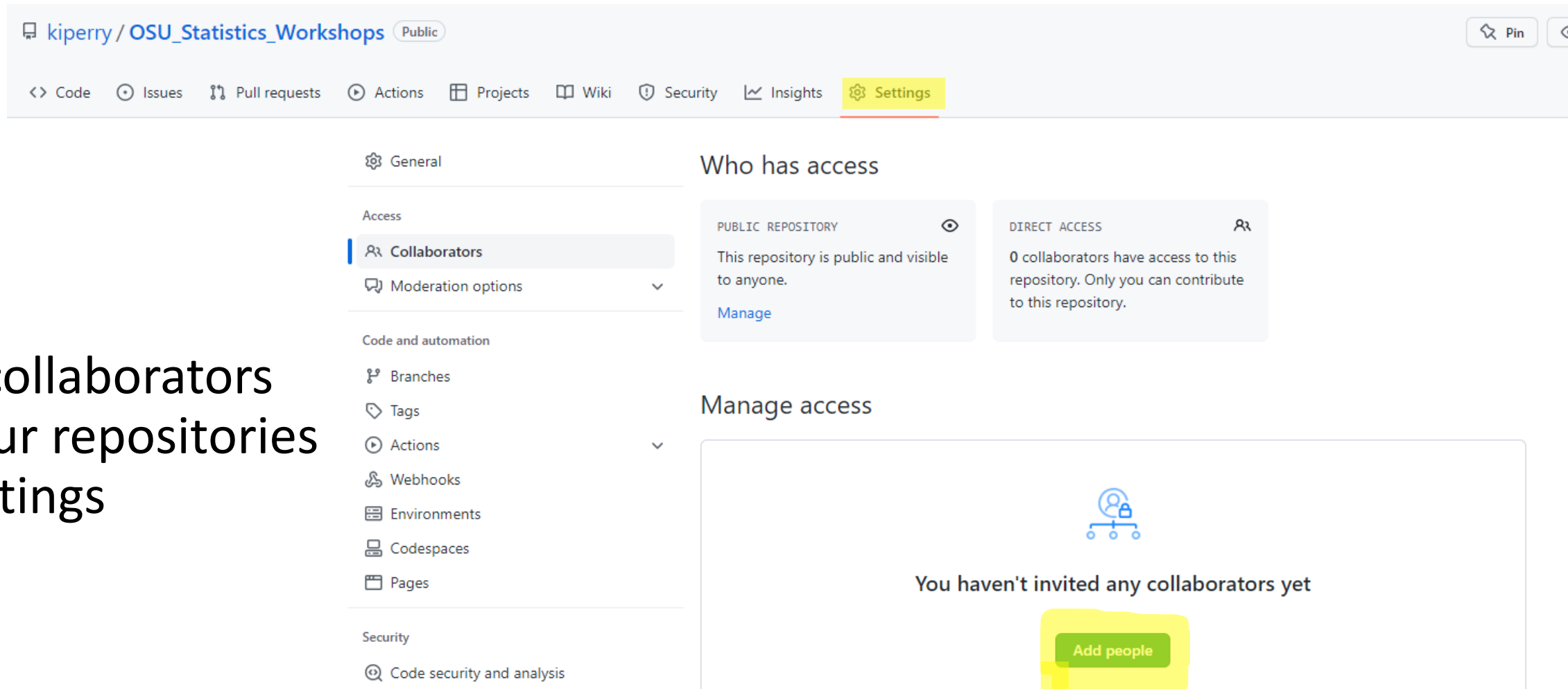
The screenshot shows the RStudio interface with the following components:

- Terminal:** Displays R version 4.2.1 (2022-06-23 ucrt) -- "Funny-Looking Kid" and copyright information. It also shows instructions for using R, such as `license()`, `licence()`, `contributors()`, `citation()`, `demo()`, `help()`, `help.start()`, and `q()`.
- Git Pane:** Located at the top right, it shows the 'Pull' button, which is highlighted by a large black arrow. The pane also includes buttons for 'Diff', 'Commit', 'Push', 'History', and 'More'.
- File Explorer:** Located at the bottom right, it shows a list of files and folders in the project directory. The files include `Week 4`, `Week 3`, `Week 2`, `Week 1`, `template.Rmd`, `README.md`, `Groups`, `ENTMLGY-6702-Groups.R`, `ENT6702_Syllabus_PerryWard_2023_FINAL.pdf`, `ENT6702_DataAnalysis.Rproj`, `.Rhistory`, and `.gitignore`.

Name	Size	Modified
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ENT6702_DataAnalysis.Rproj	218 B	Aug 31, 2023, 10:31 AM
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.gitignore	44 B	Aug 21, 2023, 9:55 AM

# You can clone any public repositories on GitHub

However, only collaborators can make changes (via push)



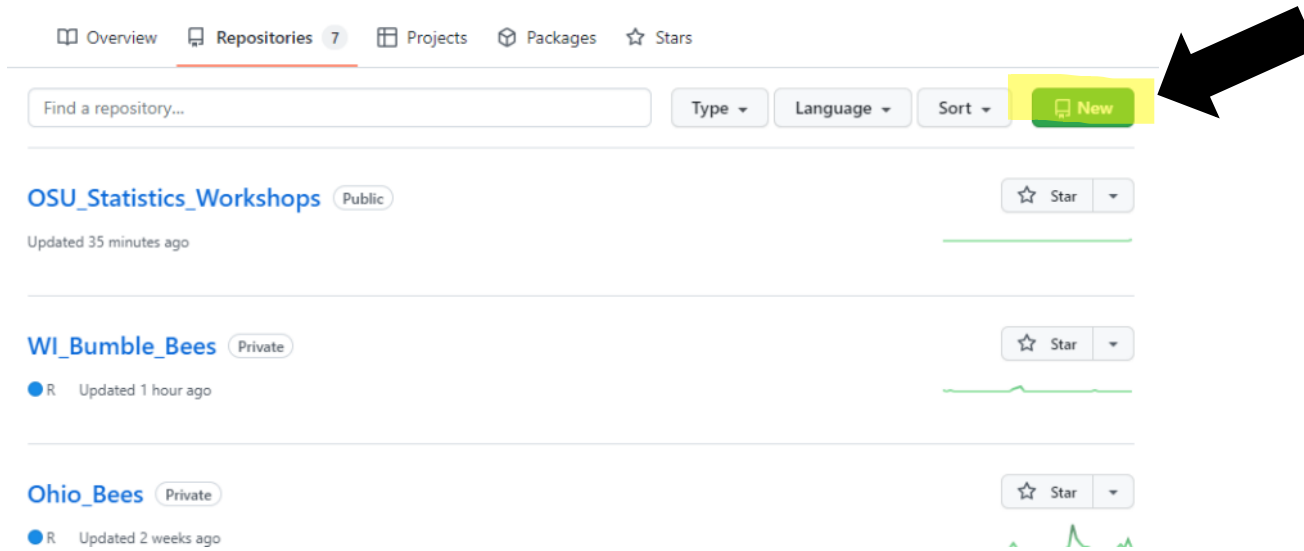
Add collaborators  
to your repositories  
in settings

**Create your own repository!**



# Create your own repository!

1. Log into your GitHub account, go to the Repositories tab, click New



## Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

### Repository template

Start your repository with a template repository's contents.

No template ▾

Owner \*

kiperry ▾

Repository name \*

PNR\_Beetles ✓

Great repository names are short and memorable. Need inspiration? How about [crispy-train](#)?

Description (optional)

☒ Public



Anyone on the internet can see this repository. You choose who can commit.

☐ Private



You choose who can see and commit to this repository.

### Initialize this repository with:

Skip this step if you're importing an existing repository.

☒ Add a README file

This is where you can write a long description for your project. [Learn more.](#)

### Add .gitignore

Choose which files not to track from a list of templates. [Learn more.](#)

.gitignore template: None ▾

### Choose a license

A license tells others what they can and can't do with your code. [Learn more.](#)


License: None ▾

This will set [main](#) as the default branch. Change the default name in your [settings](#).

 You are creating a public repository in your personal account.

Create repository

# Edit your README file

 kiperry / PNR\_Beetles Public


[Code](#) [Issues](#) [Pull requests](#) [Actions](#) [Projects](#) [Wiki](#) [Security](#) [Insights](#) [Settings](#)

main


1 branch

0 tags

[Go to file](#) [Add file](#) [Code](#)

 kiperry Initial commit

csf2a4c 1 minute ago 1 commit

 README.md

Initial commit


1 minute ago


README.md


PNR\_Beetles


About

No description, website, or topics provided.

 Readme

 0 stars

 1 watching

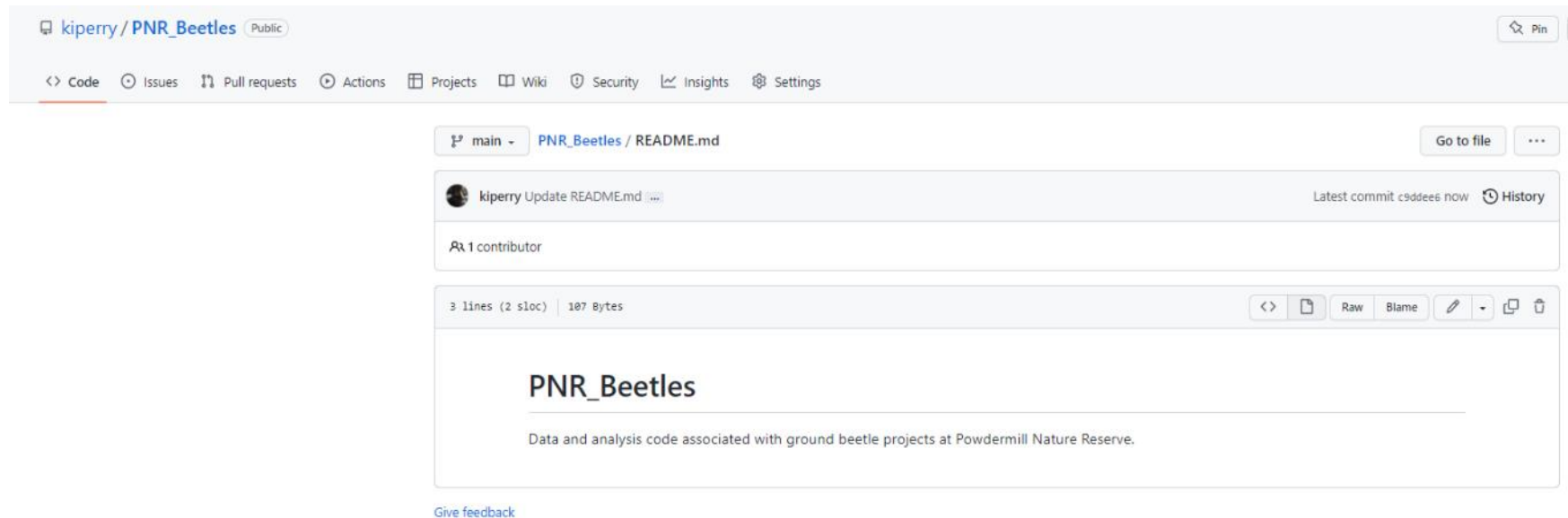
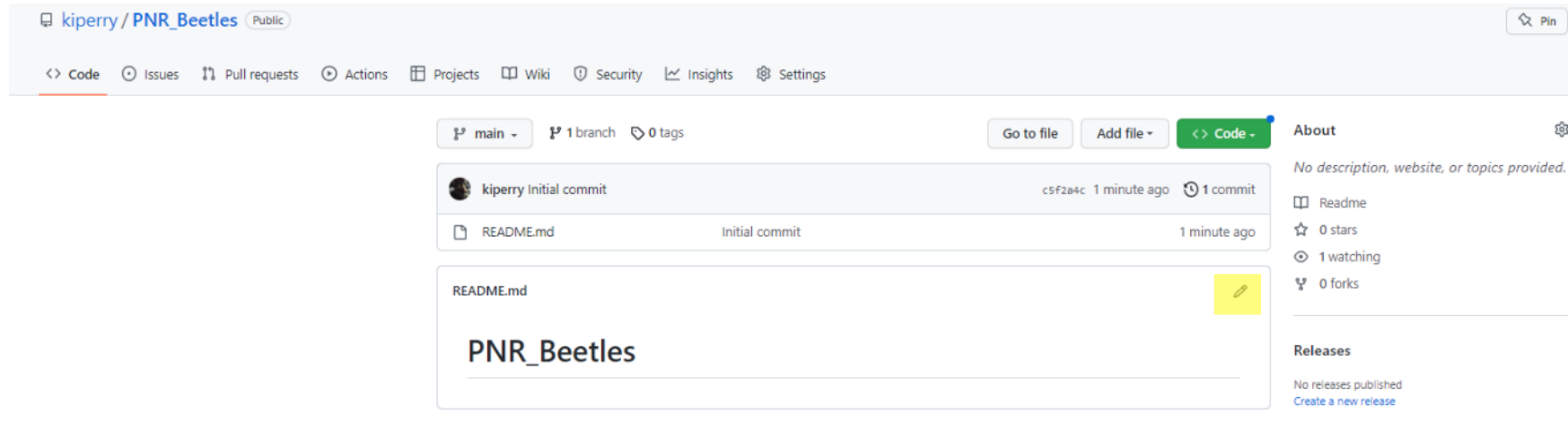
 0 forks

Releases

No releases published

[Create a new release](#)

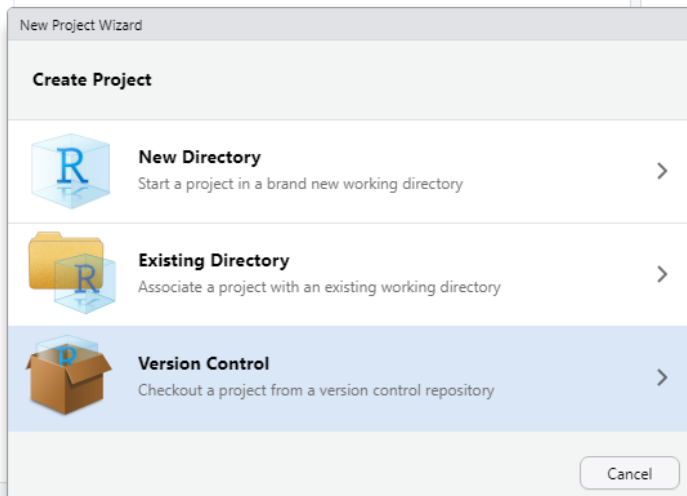
# Edit your README file



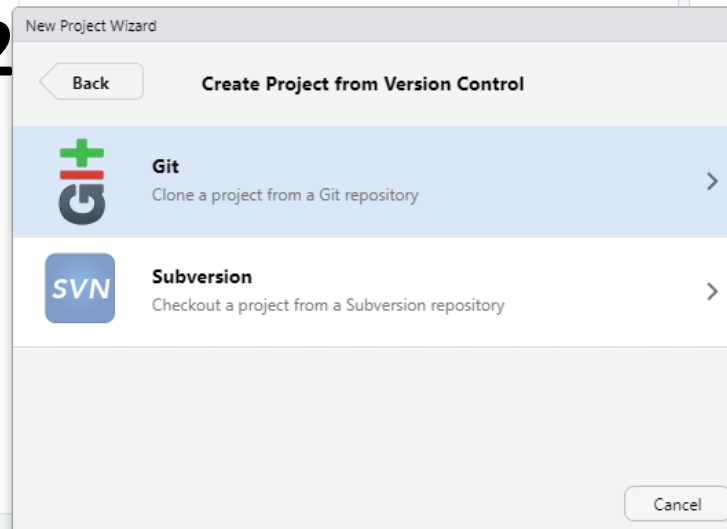
Update readme file  
with a commit

# Clone your newly created GitHub repository using R

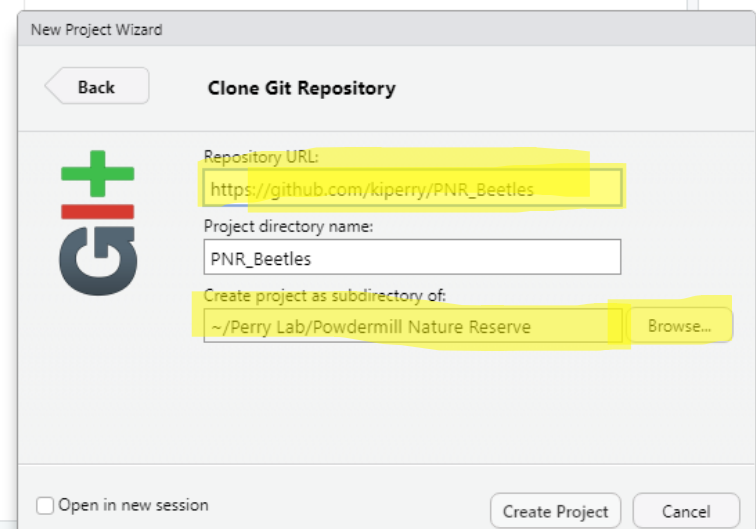
1



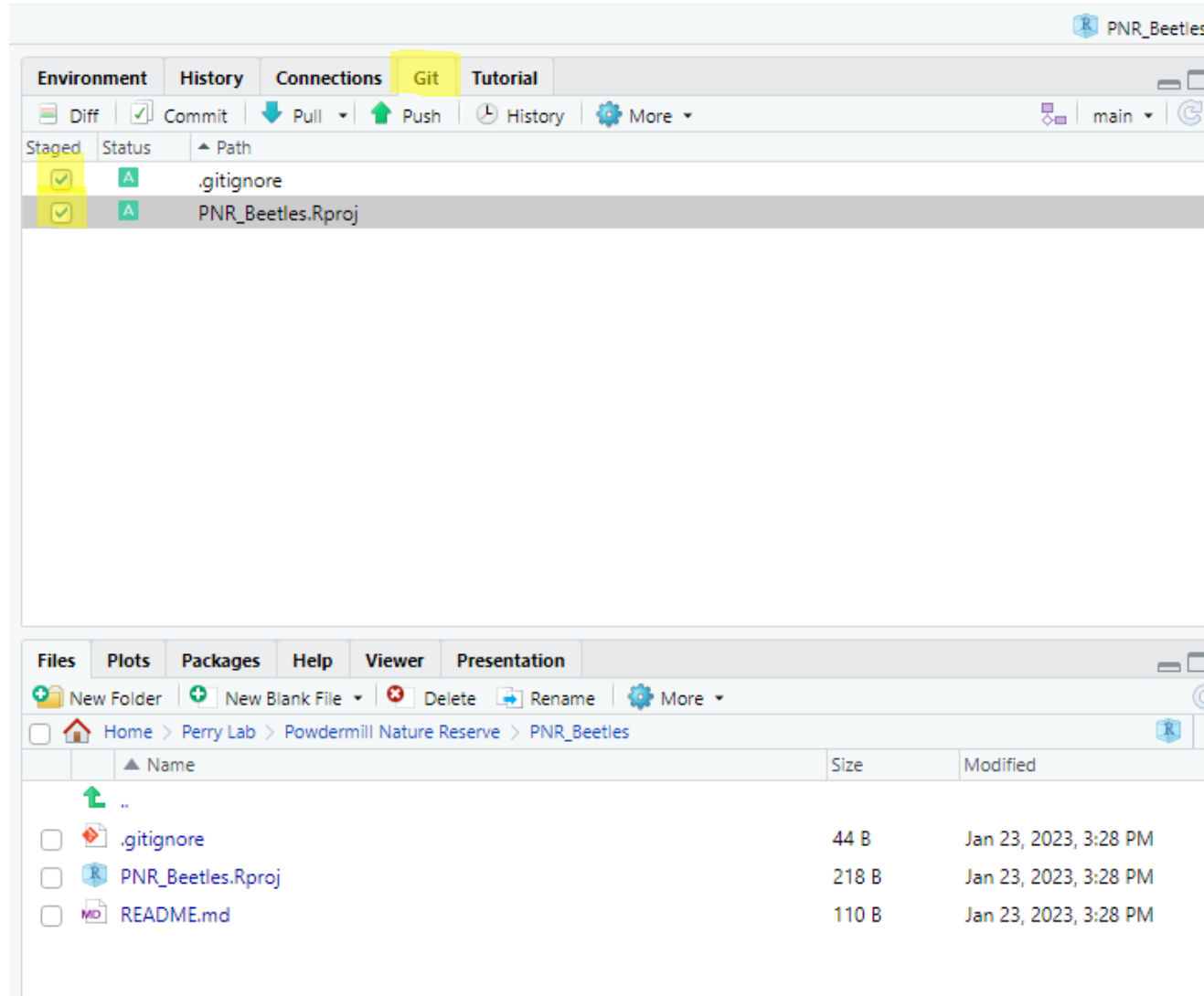
2



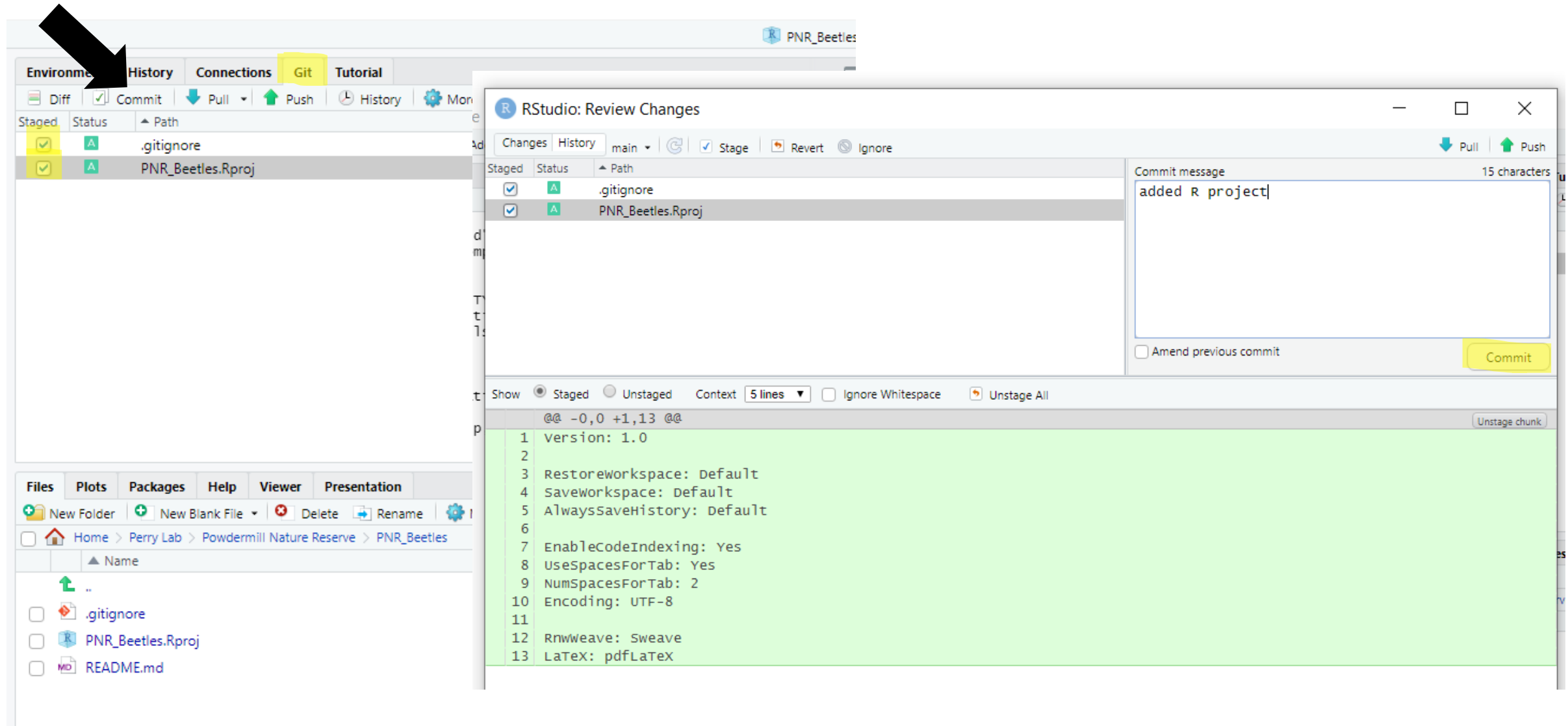
3



# Select Git tab and make a commit to save changes



# Select Git tab and make a commit to save changes



The screenshot shows the RStudio interface with the **Git** tab selected in the top-left pane. A large black arrow points to the **Git** tab. The **Staged** section of the Git pane shows two files: `.gitignore` and `PNR_Beetles.Rproj`, both with a green checkmark and an 'A' icon, indicating they are staged for commit. The **Commit message** field on the right contains the text "added R project". The **Commit** button is highlighted in yellow. The bottom pane shows the diff of the staged changes, with a green background for the added content.

**Git Pane (Left):**

- Staged: `.gitignore`, `PNR_Beetles.Rproj`

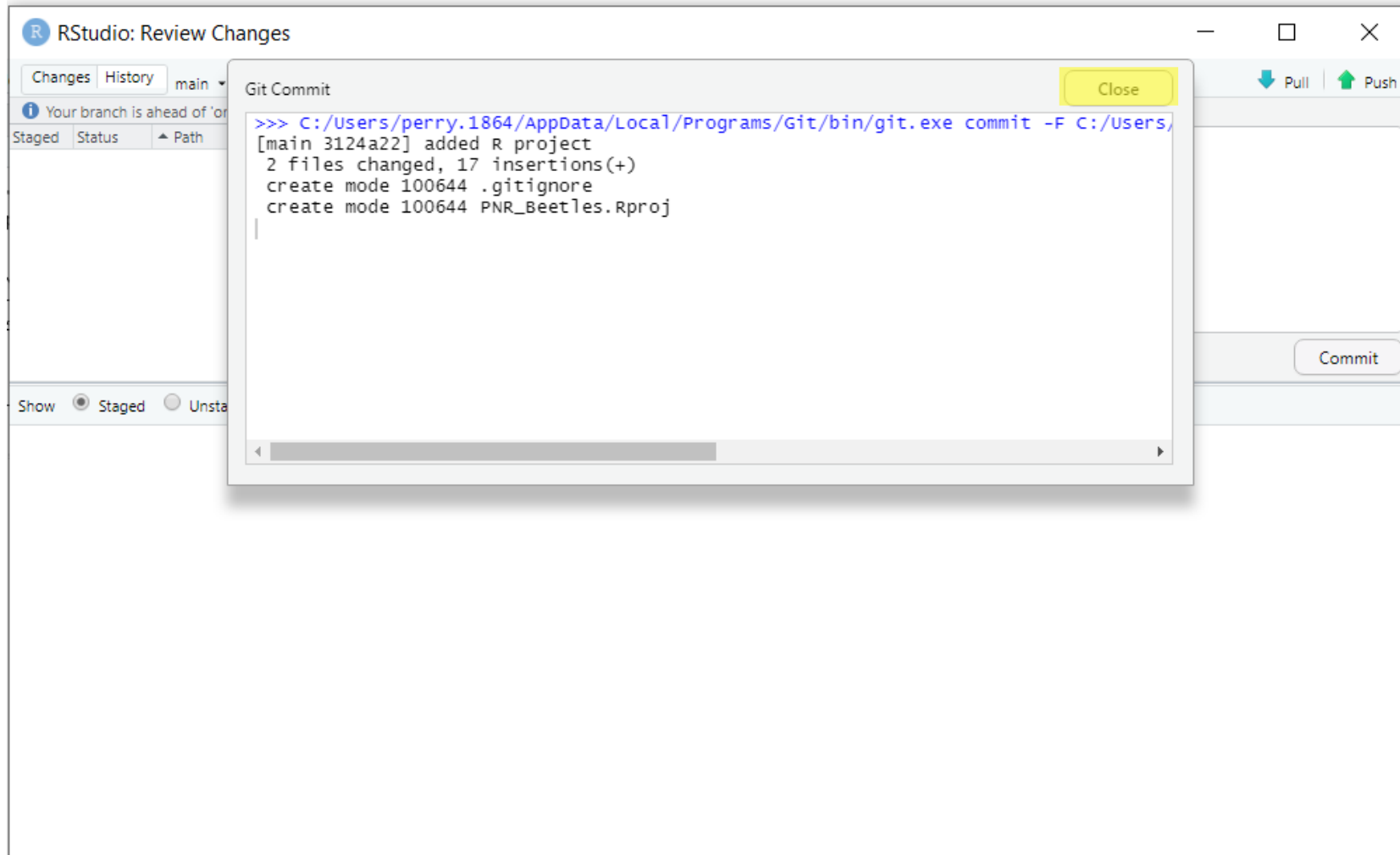
**Commit Message (Right):**

added R project

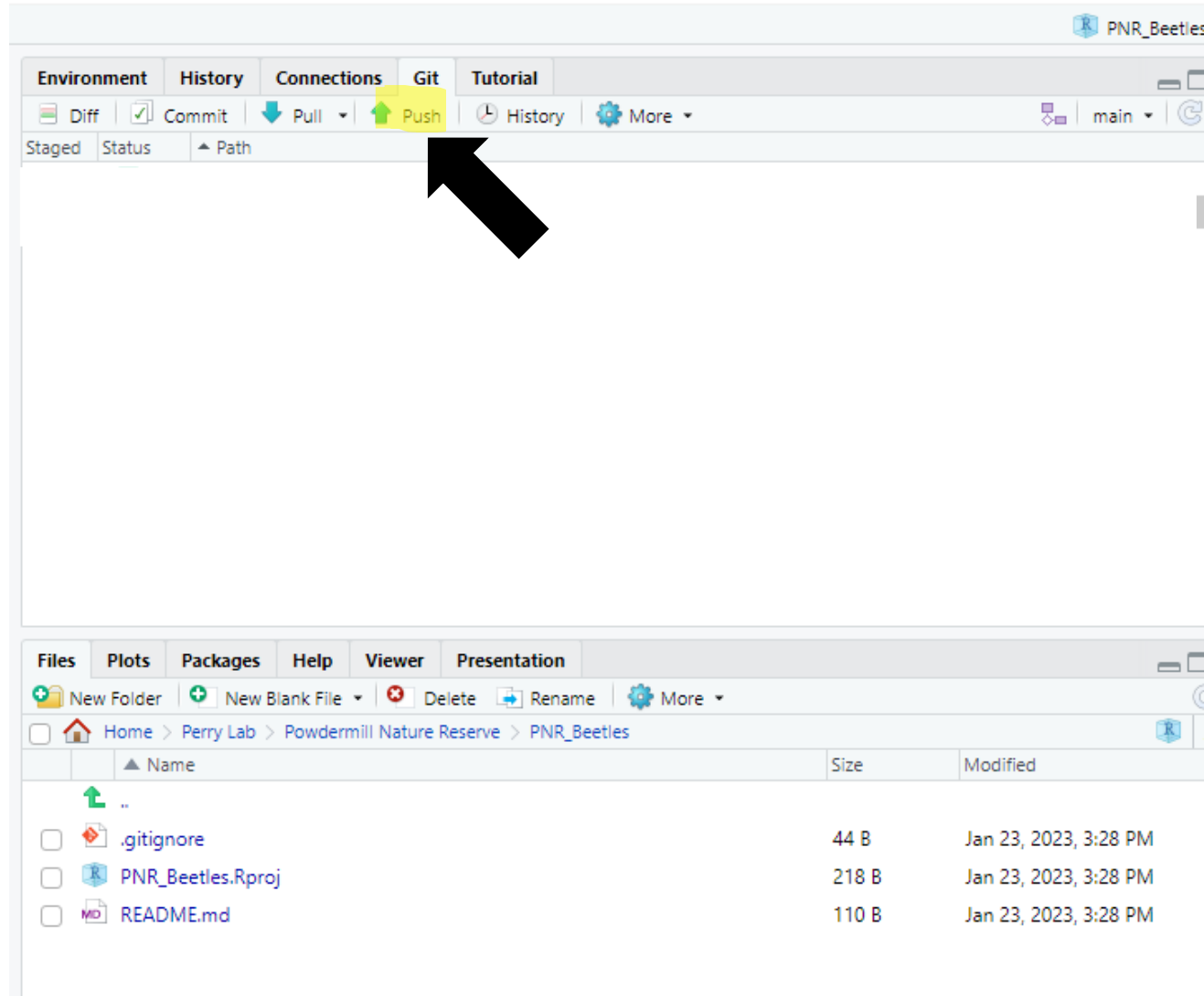
**Diff View (Bottom):**

```
@@ -0,0 +1,13 @@
1  Version: 1.0
2
3  Restoreworkspace: Default
4  Saveworkspace: Default
5  AlwaysSaveHistory: Default
6
7  EnableCodeIndexing: Yes
8  UsespacesForTab: Yes
9  NumSpacesForTab: 2
10 Encoding: UTF-8
11
12 Rnwweave: Sweave
13 LaTeX: pdfLaTeX
```

## Select Git tab and make a commit to save changes



# Push changes to your repository on GitHub

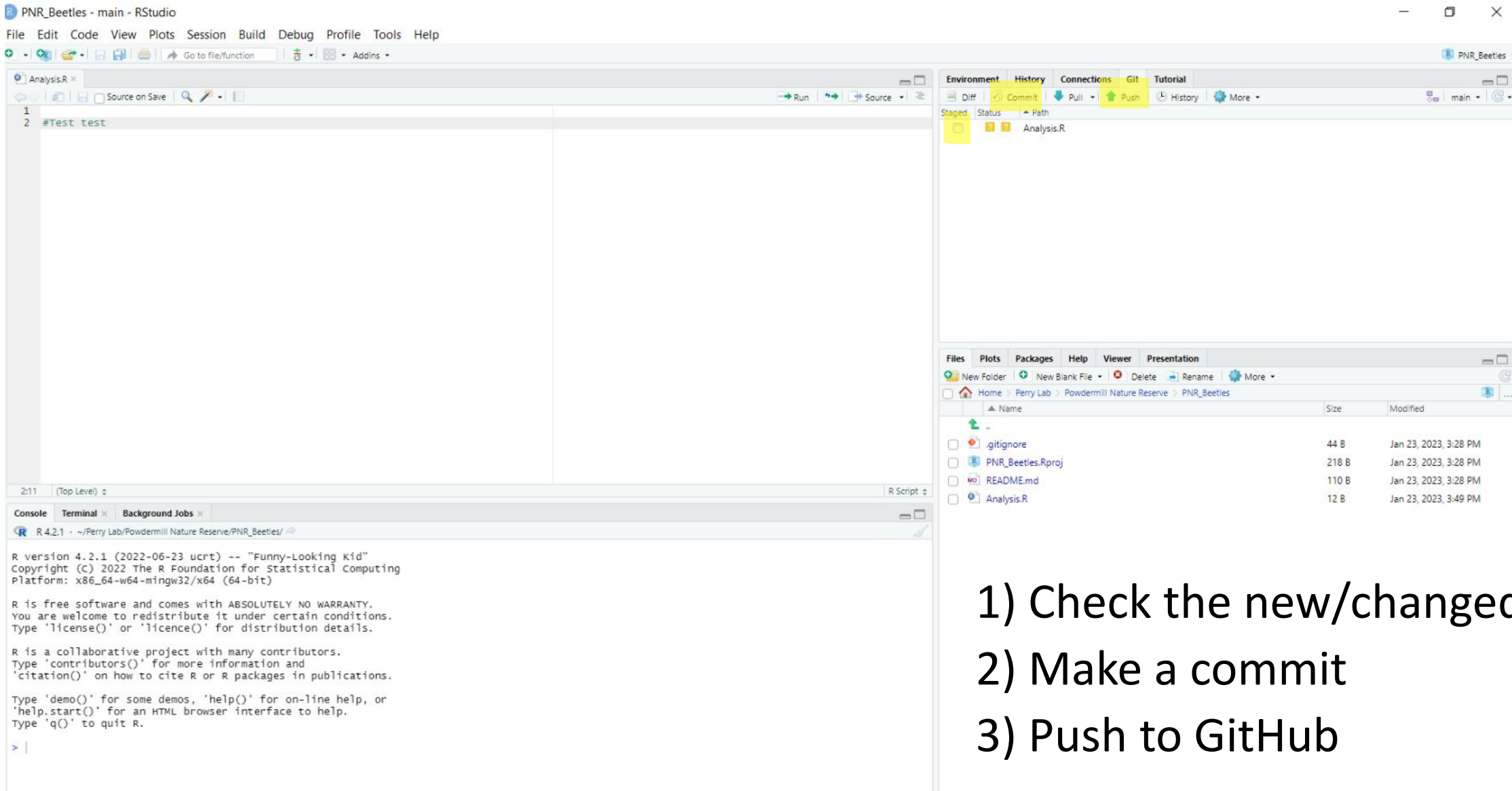




# Link your newly created GitHub repository with R




# Create a new r script and add to your repository



- 1) Check the new/changed file
- 2) Make a commit
- 3) Push to GitHub

# New R files now in GitHub repository

 kiperry / **PNR\_Beetles** Public

[Code](#) [Issues](#) [Pull requests](#) [Actions](#) [Projects](#) [Wiki](#) [Security](#) [Insights](#) [Settings](#)

main ▾


1 branch





0 tags


Go to file

Add file ▾

<> Code ▾

 kiperry added r script 2ce02bf now 🕒 4 commits

 .gitignore	added R project	9 minutes ago
 Analysis.R	added r script	now
 PNR_Beetles.Rproj	added R project	9 minutes ago
 README.md	Update README.md	32 minutes ago

README.md 

## PNR\_Beetles

---

Data and analysis code associated with ground beetle projects at Powdermill Nature Reserve.

# Review changes in your files over time

Version control that documents development history over time

The screenshot displays the RStudio interface with the 'Review Changes' window open. The window is divided into several sections:

- Commit History:** A table showing the last five commits, all by Kayla I Perry on 2023-01-23. The current commit (HEAD) is highlighted in blue.
- Commit Details:** Information for the selected commit (SHA: 974b0cbf), including author, date, subject, and parent commit.
- File Differences:** A view of the 'Analysis.R' file showing changes between the parent and current commit. Line 2 is highlighted in red (deletion), and lines 3-4 are highlighted in green (addition).

The background shows the RStudio IDE with the 'Git' tab selected in the top right, displaying the project's file structure and commit history.

Subject	Author	Date (UTC)	SHA
HEAD -> refs/heads/main origin/main origin/HEAD updated code	Kayla I Perry <kiperry1488@gmail.com>	2023-01-23	974b0cbf
added r script	Kayla I Perry <kiperry1488@gmail.com>	2023-01-23	2ce02bf9
added R project	Kayla I Perry <kiperry1488@gmail.com>	2023-01-23	3124a221
Update README.md	Kayla I Perry <kiperry1488@gmail.com>	2023-01-23	c9ddee66
Initial commit	Kayla I Perry <kiperry1488@gmail.com>	2023-01-23	c5f2a4c6

SHA	974b0cbfee447179394fc7ca8a7143dd34623261
Author	Kayla I Perry <kiperry1488@gmail.com>
Date (UTC)	2023-01-23 20:55
Subject	updated code
Parent	2ce02bf96a3753219aaab7e31664b82ba783fd0b

File	Analysis.R
@@ -1,2 +1,4 @@	
1 1	
2 #Test test	No newline at end of file
2 #Test test	
3	
4 #another update	
No newline at end of file	

# If a collaborator is added to your repository....

Start by pulling changes from the online repository

