

Workshop Series

Open Science Skills in R

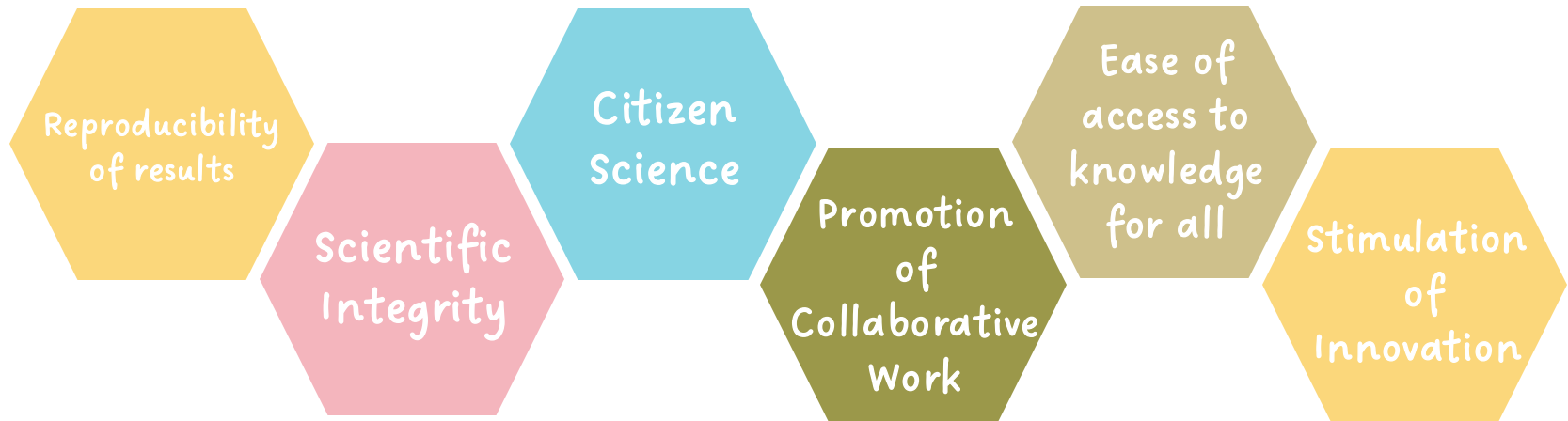
Brought to you by

Christelinda Laureijs
Julia Riley
Elizabeth Stregger

What is Open Science?

The process of making the content and process of producing evidence and claims transparent and accessible to others.

SUPPORTS:



About this Workshop Series

THE LEADERS



Christelinda Laurejis

M.Sc. Candidate
in Biology



Elizabeth Stregger

Data and Digital
Services Librarian



Dr. Julia Riley

Assistant
Professor

We all love coding in R and open science!!!

About this Workshop Series

THE SERIES

Wednesdays from 5:00-6:30 PM in AVDX G10

Workshop # 1

29 Jan 2025

Welcome & Being Tidy

Dr. Riley

Workshop # 2

5 Feb 2025

Git with it!

Elizabeth Stregger

Workshop # 3

12 Feb 2025

Science Writing in R
Christelinda Laurejis

About this Workshop Series

WHAT CAN YOU EXPECT?

1

Welcome & Being Tidy

2

Git with it!

3

Science Writing in R

Both a mix of lecture and activities.

- 45 min hybrid lecture
- 45 min in-person activity

About this Workshop Series

WHAT CAN YOU EXPECT?

1

Welcome & Being Tidy

2

Git with it!

3

Science Writing in R

Both a mix of lecture and activities.

- 45 min hybrid lecture
- 45 min in-person activity



One person will lead each workshop, and the two others will be “floaters”. If you have an issue or question, put a **RED** post-it note on top of your laptop. Floaters will be by to help you out!

Open Science Skills in R – A Workshop Series

Welcome to Git with It!

Original black cat illustrations by
Nellie Littlehale Umbstaetter,
Available from the [Internet Archive](#)



Let's Git Set Up

OUR SOFTWARE TOOLKIT FOR THESE WORKSHOPS



R Software

- Open-source statistical programming language
- Also an environment for statistical computing and graphics that is easily extendable using *packages*



R Studio

- R Studio is a convenient interface for R called an IDE (integrated development environment; e.g., "*I write R code in the R Studio IDE*")
 - It is not a requirement for programming with R, but it is very commonly used by data scientists

Let's Git Set Up

OUR SOFTWARE TOOLKIT FOR THESE WORKSHOPS



Git

- Open-source version control system
- Unique branching features



GitHub

- Cloud-based platform
- *Share work, track and manage changes, collaborate*

Git's Set Up!

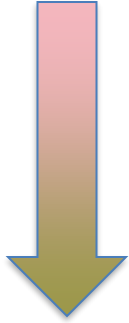


So far, you've successfully:

- Created a GitHub account
 - Installed Git
- Created GitHub credentials and saved them in Rstudio

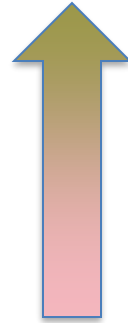
And if you ran into trouble, let's meet and work through it.

RStudio & GitHub: Push & Pull



Pull

Updates your local repository (Rstudio on your computer) with changes from the remote repository (in this case, GitHub)



Push

Updates the remote repository (in this case, GitHub) with changes in your local repository (Rstudio on your computer)

Tip for working with other people

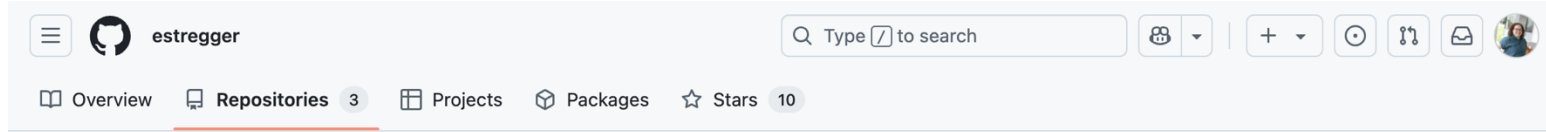
Pull at the beginning of each work session to update your local repository

GitHub and R: Approaches

3 general approaches to getting started:

1. New project from GitHub pulled into R
 2. Existing project from GitHub pulled into R
 3. Existing R project made into Git repository and pushed to R
-

New: GitHub to R



GitHub profile header for user **estregger**. It includes a search bar with the text "Type to search", navigation tabs for Overview, Repositories (3), Projects, Packages, and Stars (10), and a row of icons for repository actions.

1. Go to
repositories



Elizabeth Stregger

estregger · they/she

Data and Digital Services Librarian

Edit profile

Find a repository...

Type ▾

Language ▾

Sort ▾

New

2023-08-14-mta Public

HTML Other Updated on Aug 12, 2023

Star ▾

2022-06-28-nhs-online Public

2022-06-28 Library Carpentries Workshop for NHS

HTML Other Updated on Jun 10, 2022

hello-world Public

Updated on Jun 9, 2022

Star ▾

2. Click on
new

New: GitHub to R

Create a new repository

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

Required fields are marked with an asterisk (*).

Repository template

No template ▾

Start your repository with a template repository's contents.

Owner *



Repository name *

2025-hello-world

✓ 2025-hello-world is available.

1. Name the repository

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

Description (optional)

new repository: test Github to R

2. Give it a description

☒ 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.

3. Choose public or private

New: Github to R

Initialize this repository with:

☒ Add a README file

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

Add .gitignore

.gitignore template: None ▾

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

Choose a license

License: Creative Commons Zero v1.0 Universal ▾

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

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

4. Add a
README file

5. Choose a
license

6. Create
repository

New: GitHub to R

The screenshot shows a GitHub repository page for 'estregger / 2025-hello-world'. The repository is public and has 1 branch (main) and 0 tags. It contains two files: LICENSE and README.md, both committed 20 hours ago. The README file is selected, showing the title '2025-hello-world' and the content 'new repository: test Github to R'. The right sidebar shows repository statistics: 0 stars, 1 watching, and 0 forks. The footer includes GitHub's copyright notice and various links like Terms, Privacy, and Security.

estregger / 2025-hello-world

Type to search

< Code Issues Pull requests Actions Projects Wiki Security Insights Settings

2025-hello-world Public

Pin Unwatch 1 Fork 0 Star 0

main 1 Branch 0 Tags

Go to file

Code

estregger Initial commit d83ebcd · 20 hours ago 1 Commit

LICENSE	Initial commit	20 hours ago
README.md	Initial commit	20 hours ago

README CC0-1.0 license

2025-hello-world

new repository: test Github to R

About

new repository: test Github to R

- Readme
- CC0-1.0 license
- Activity
- 0 stars
- 1 watching
- 0 forks

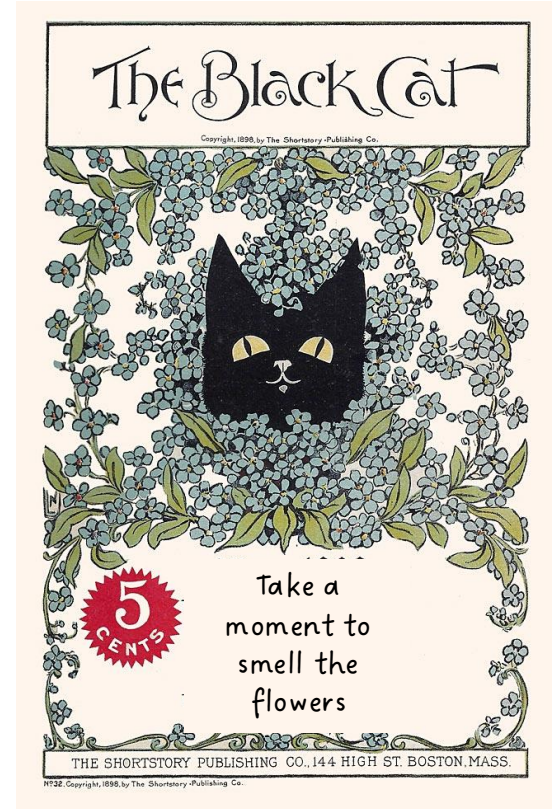
Releases

No releases published
[Create a new release](#)

Packages

No packages published
[Publish your first package](#)

© 2025 GitHub, Inc. Terms Privacy Security Status Docs Contact Manage cookies Do not share my personal information



New: GitHub to R

The screenshot shows the GitHub interface for a repository named '2025-hello-world' by user 'estregger'. The repository is public and has 1 branch and 0 tags. The 'Code' button is highlighted with a green border, and its dropdown menu is open, showing options for cloning the repository via HTTPS, SSH, or GitHub CLI. The HTTPS URL is displayed as 'https://github.com/estregger/2025-hello-world'. The 'About' tab is also visible, showing repository details like license (CC0-1.0), activity, and releases.

estregger / 2025-hello-world

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

2025-hello-world Public

main 1 Branch 0 Tags

estregger Initial commit

LICENSE Initial commit

README.md Initial commit

README CC0-1.0 license

2025-hello-world

new repository: test Github to R

Go to file t + <> Code About

Local Codespaces

Clone ?

HTTPS SSH GitHub CLI

https://github.com/estregger/2025-hello-world

Clone using the web URL.

Open with GitHub Desktop

Download ZIP

About

new repository: test

Readme

CC0-1.0 license

Activity

0 stars

1 watching

0 forks

Releases

No releases published

Create a new release

Packages

No packages published

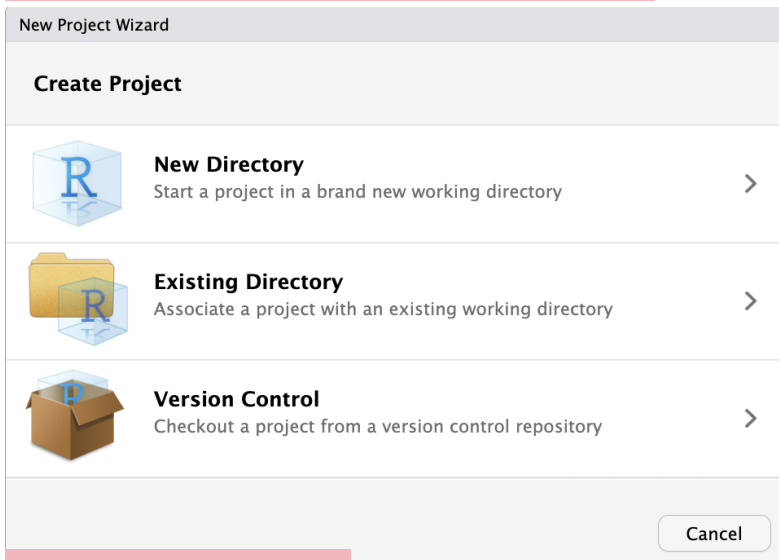
Publish your first package

1. Click on
Code button

2. Click on copy. Choose
HTTPS if you used the
default HTTPS
credentials.

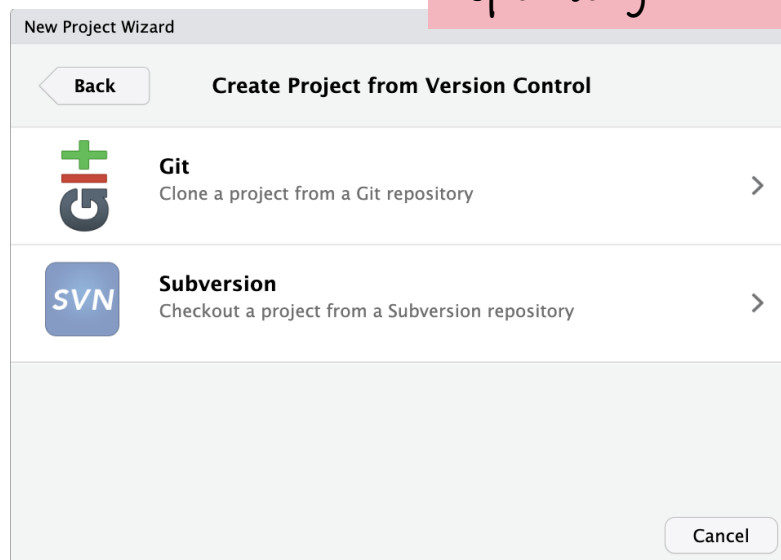
New: GitHub to R

1. Open Rstudio and go to File
> New Project



2. Select
version control


3. Select Git: Clone a
project from a Git
repository



New: GitHub to R

New Project Wizard

[Back](#) **Clone Git Repository**



Repository URL:

Project directory name:

Create project as subdirectory of:
 [Browse...](#)

☐ Open in new session

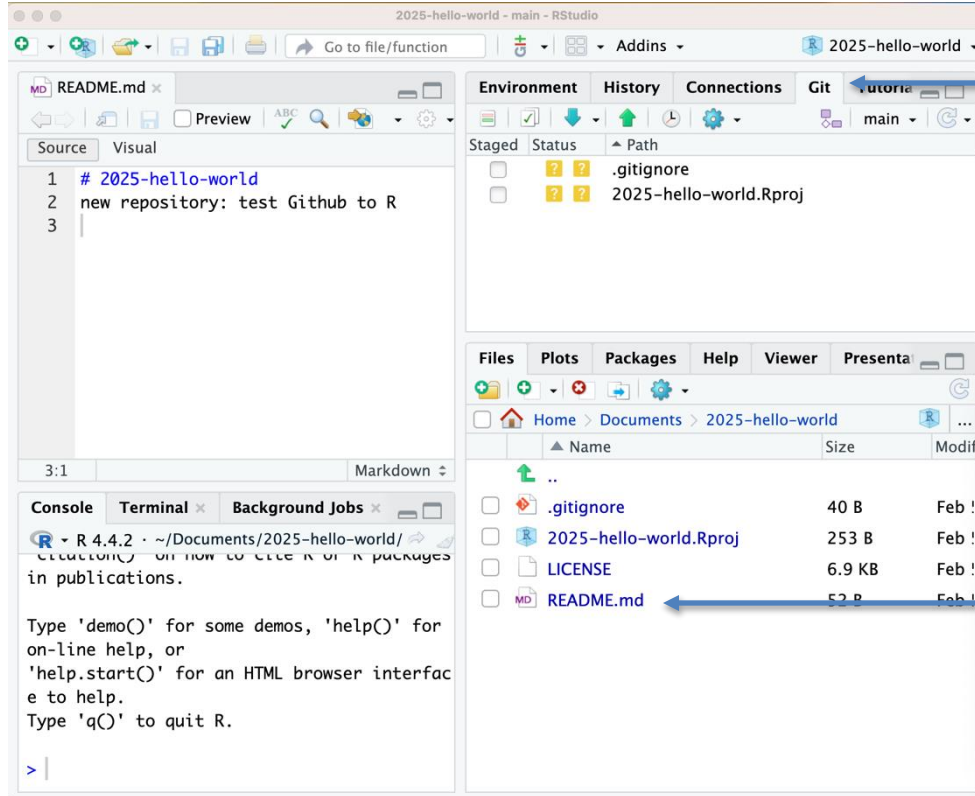
[Create Project](#) [Cancel](#)

1. Paste URL you got from the code button in GitHub

2. Give it a project directory name
And

3. Create Project

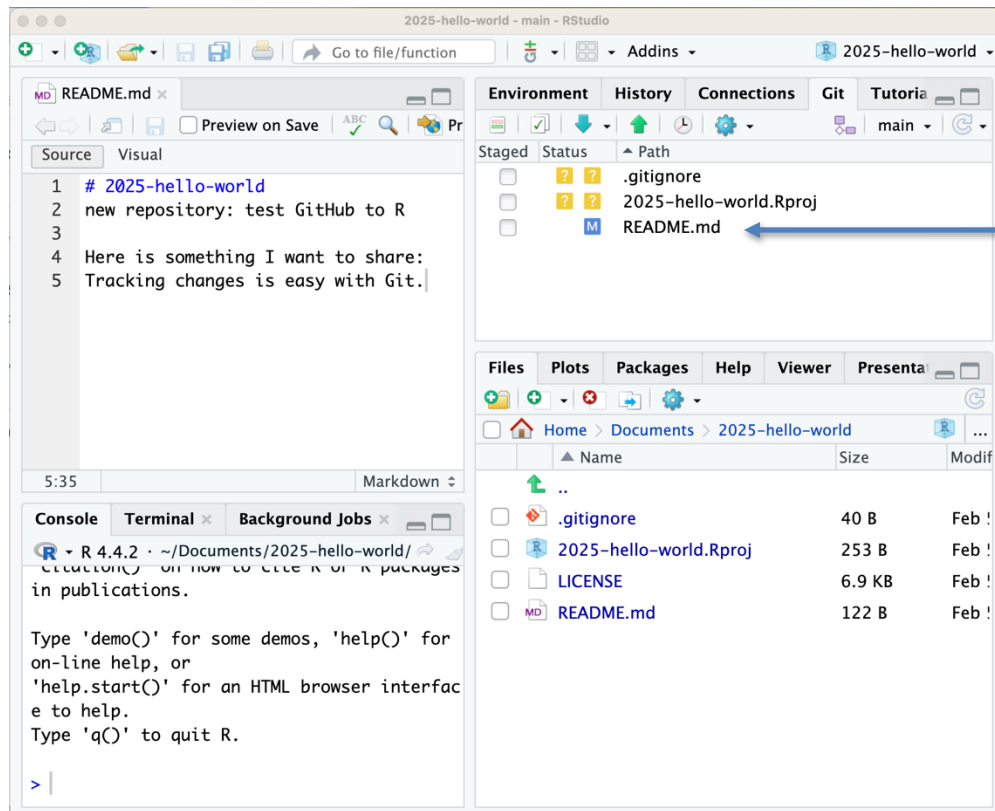
New: GitHub to R



1. Notice new tab: Git

2. Click on README.md file.
This is the file you created
when you created your
repository

New: GitHub to R



1. Make some changes to your README.md file and save it.

2. Your README.md file will appear in the Git pane with a blue M box next to it.

Git pane symbols:

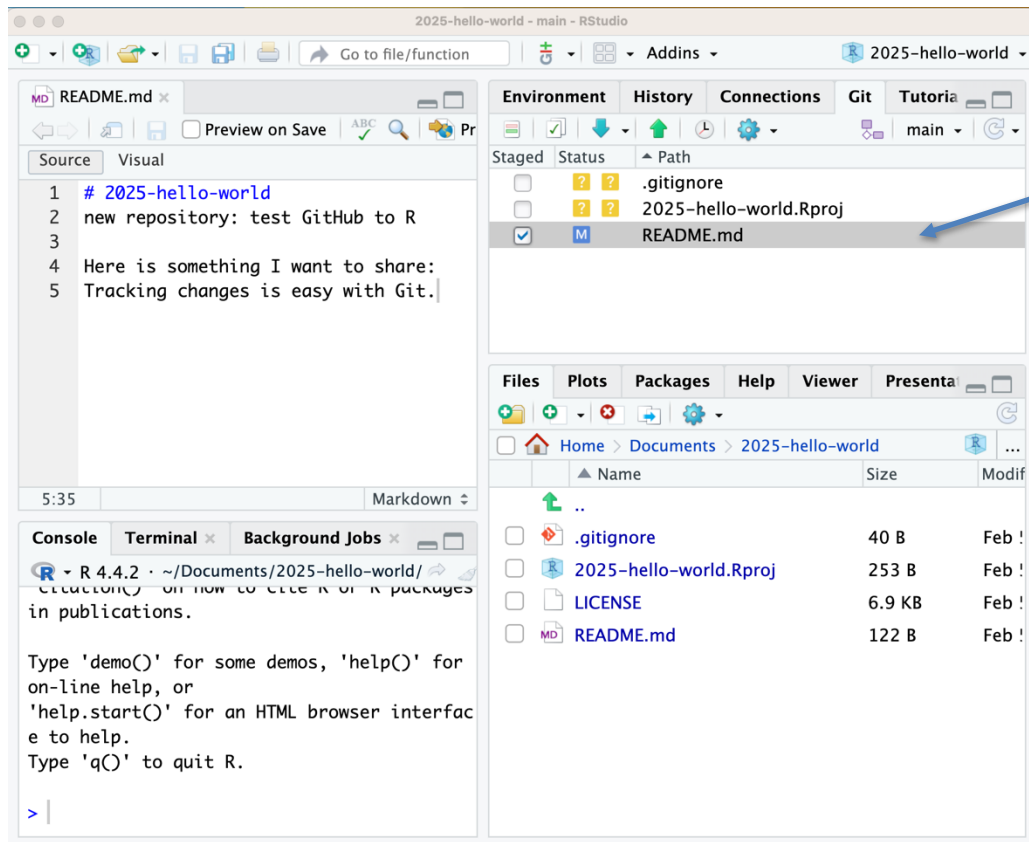
? Untracked

M Modified

D Deleted

R Renamed

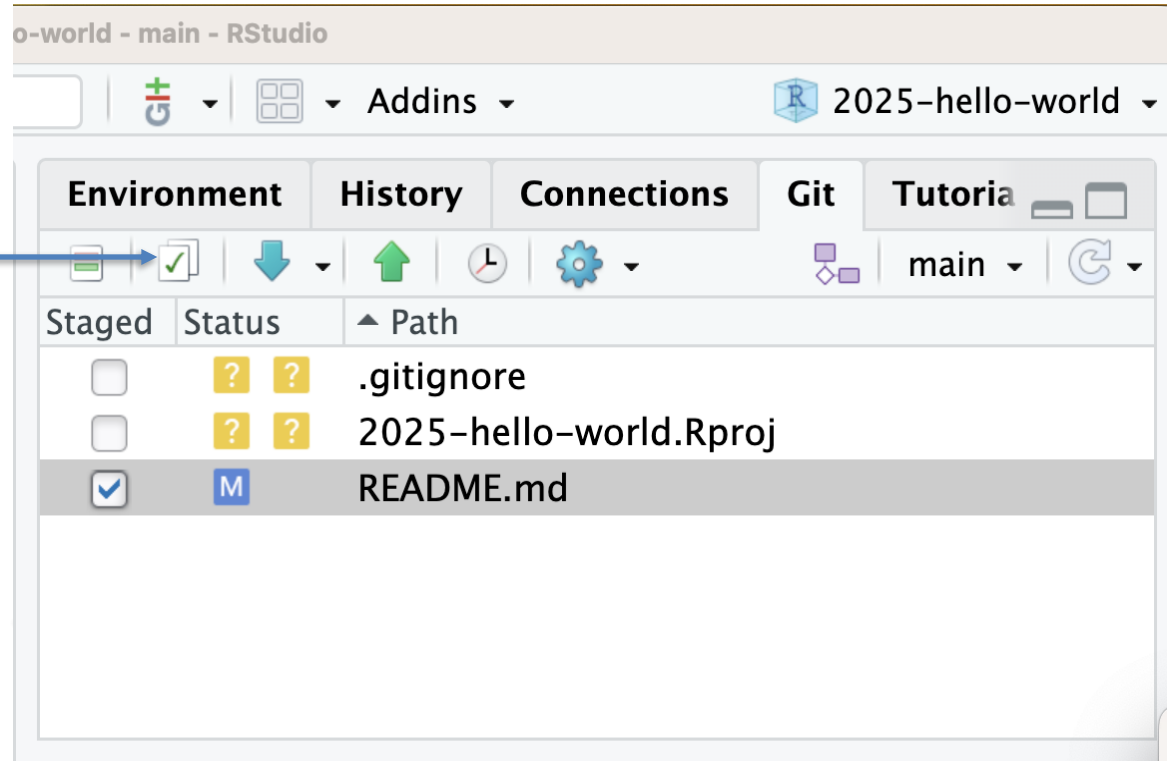
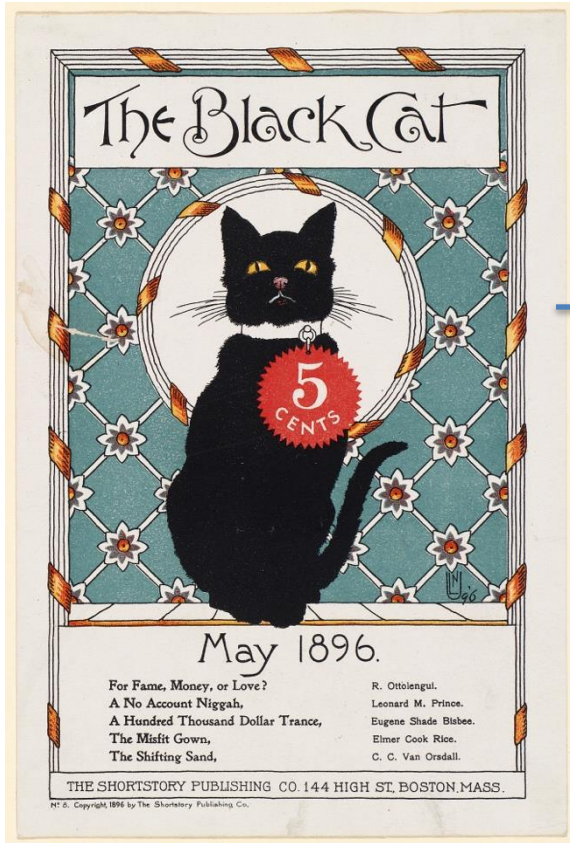
New: GitHub to R



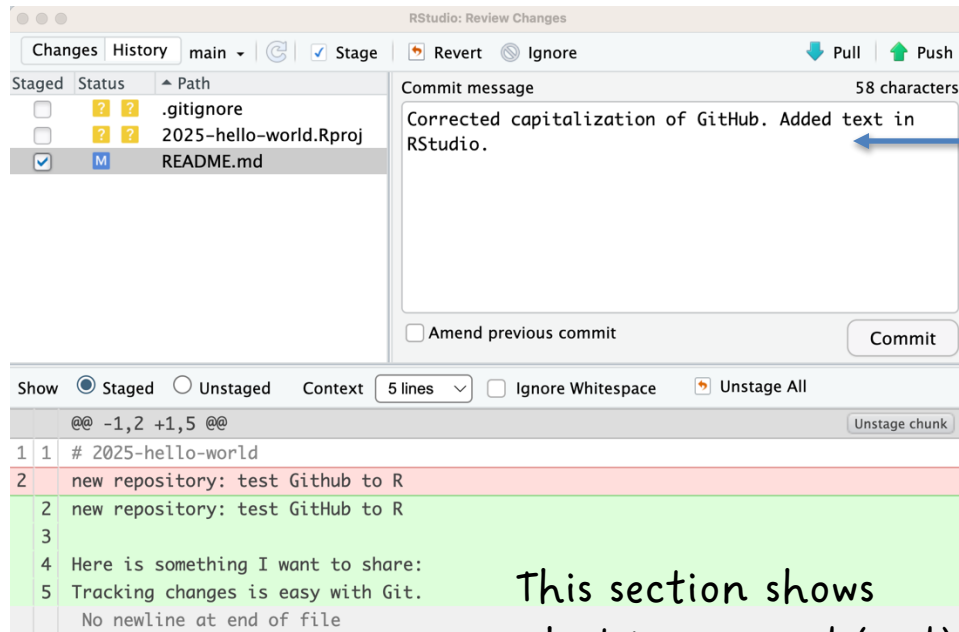
1. Tick the box next to README.md to stage it.

Stage a file when:
You're ready to take a
snapshot of this new
version of your file.
The staged files will be
included in your next
commit.

New: GitHub to R



New: GitHub to R



This section shows what is removed (red) and what is added (green).

1. Describe changes in the commit message. Being detailed will save you (and others) time later.
2. Click Commit
3. Push using arrow.

New: GitHub to R

The screenshot shows the GitHub interface for a repository named '2025-hello-world' by user 'estregger'. The repository is public and has 1 branch (main) and 0 tags. The commit history shows two commits: 'Initial commit' (yesterday) and 'Corrected capitalization of GitHub. Added text in RStudio...' (2 minutes ago). The README file is visible, showing the title '2025-hello-world' and the text: 'new repository: test GitHub to R' and 'Here is something I want to share: Tracking changes is easy with Git.' The right sidebar shows repository statistics: 0 stars, 1 watching, 0 forks, and 0 releases/packages published.

estregger / 2025-hello-world

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

2025-hello-world Public

main 1 Branch 0 Tags

Go to file + <> Code

estregger Corrected capitalization of GitHub. Added text in RStudio. 03e837f · 2 minutes ago 2 Commits

File	Commit	Time
LICENSE	Initial commit	yesterday
README.md	Corrected capitalization of GitHub. Added text in R...	2 minutes ago

README CC0-1.0 license

2025-hello-world

new repository: test GitHub to R

Here is something I want to share: Tracking changes is easy with Git.

About

new repository: test Github to R

- Readme
- CC0-1.0 license
- Activity
- 0 stars
- 1 watching
- 0 forks

Releases

No releases published

[Create a new release](#)

Packages

No packages published

[Publish your first package](#)

Back to GitHub
(refresh if
necessary)
Which files
changed?
When?

Activity

Share account names with a few people.

Invite them to collaborate on your repository.

Accept invitations from others.

Clone their repositories to a new Rstudio project on your computer.

Create a new Rmd file, save it.

Pull to see if any additional changes have been made.

Stage your changes, commit them, and push them to the other person's repository.

Branching

We were working on the main branch.

If you have multiple people working on solving a problem, creating a new branch can preserve a clean history of all approaches and reduce the frequency of merges. The same is true if you are testing multiple approaches on your own!

Once you've decided on a solution, you can merge a branch back into the main branch.



5—California Stories—

Am I...
making some
friends?

THE SHORTSTORY PUBLISHING CO 144 HIGH ST. BOSTON, MASS.

1851 THE PHOENIX MUTUAL
1899 LIFE INSURANCE COMPANY

OF HARTFORD, CONN.

TERMS: Endowment Policies to either men or women, which (besides paying Five other options), GUARANTEE when the Insured is Fifty, Sixty or Seventy Years Old, TO PAY \$1,000 IN CASH FOR EVERY \$1,000 of Insurance in force. Sample policies, rates and other information will be sent on application to the Home Office.

JOSEPH B. BECKER, JOHN M. HOLCOMBE, CHARLES H. LAWRENCE,
President, Vice-President, Secretary.

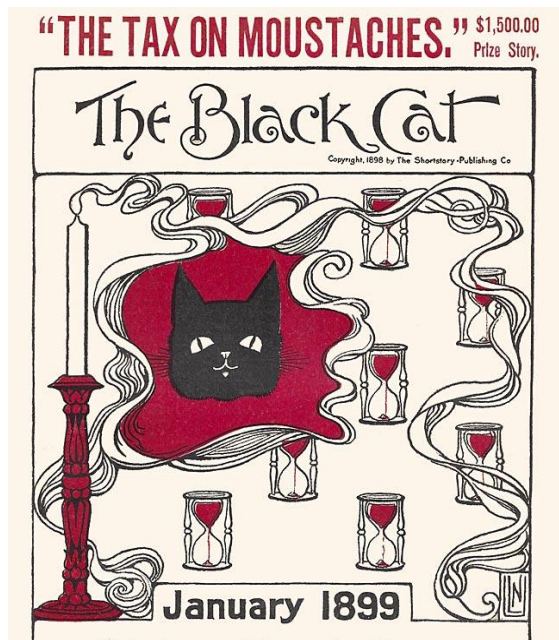
The original repository is called the upstream repository.

Instead of a branch, work is done on a fork.

Instead of pushing the changes to the repository, the person solving the problem submits a pull request.

The collaborators on the original project then decide if they want to pull code from the fork and merge it.

ANY LAST QUESTIONS?



Thank you.