# Intro to git and GitHub

FISH 576, Winter 2025, Week 1

### Intro

- There are many different tools for interacting with git and GitHub, making it slightly harder for folks to learn from each other
- The tools and overall framework take time to learn
- Many of you are already really familiar with these tools
- Others may just be getting started
- We can all learn together and help each other
- Have patience

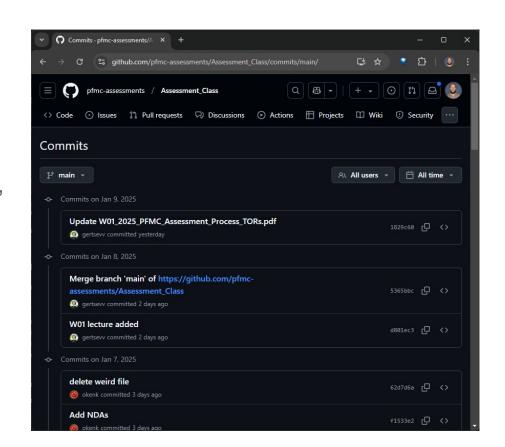
## git

- Git is an open-source version control system that keeps track of changes to files
- Files are organized by repository ("repo")
- Has become the standard system used by almost all software developers
- Command-line interface is really powerful but can be harder to learn that other tools
- First released in 2005

```
C:\windows\system32\cmd.e> X
Your branch is up to date with 'origin/main'.
Changes to be committed:
 (use "git restore --staged <file>..." to unstage)
       modified: Rscripts/process_rec_comps.R
Changes not staged for commit:
 (use "git add <file>..." to update what will be committed)
 (use "git restore <file>..." to discard changes in working directory)
Untracked files:
  (use "git add <file>..." to include in what will be committed)
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```

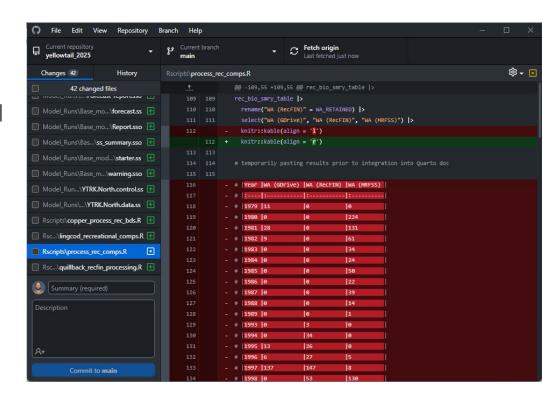
#### **GitHub**

- Developer platform that hosts git repositories
- Has many powerful tools for interacting with the git repositories as well as providing issue tracking, forums, etc.
- Hosts over 400 million repos used by over 100 million developers
- Founded in 2008, part of Microsoft since 2018



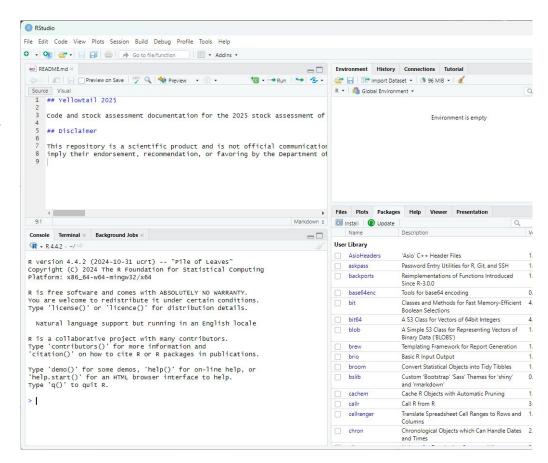
## GitHub Desktop

- Desktop client created by GitHub
- Easy way to commit, push, and pull changes to/from GitHub
- Needs to be paired with any text editor of your choice



#### RStudio IDE

- Integrated Development
   Environment which is great for working with R
- Has git integration
- First released in 2011
- Developed by Posit PBC



# Visual Studio Code (VS Code)

- Integrated development environment that works well with many languages
- Has git integration
- First released in 2015
- Developed by Microsoft

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## General guidance

- Choose whatever tools sound good to you
- Find more experienced users who can support you
- Try multiple options and be open to new ideas
- Have patience