

Creating new projects

Starting from scratch

EPI 590R final project

Your goal will be to create an analysis that

- I can reproduce on my own computer
- Is easy to rerun if I tell you, for example, to remove the 12th row of your dataset

We'll start this in class!

New projects

We cloned our first project from GitHub; now we are going to start a new project from scratch

1. File > New Project > New Directory > New Project

- If you ever want to convert an existing folder that holds an analysis into an R project, you can choose “Existing Directory”
- You’ll also see other options besides “New Project” – an R package, a Shiny app, etc.
 - These will get you set up with some initial files for these types of projects
 - You can also make a template of your own!

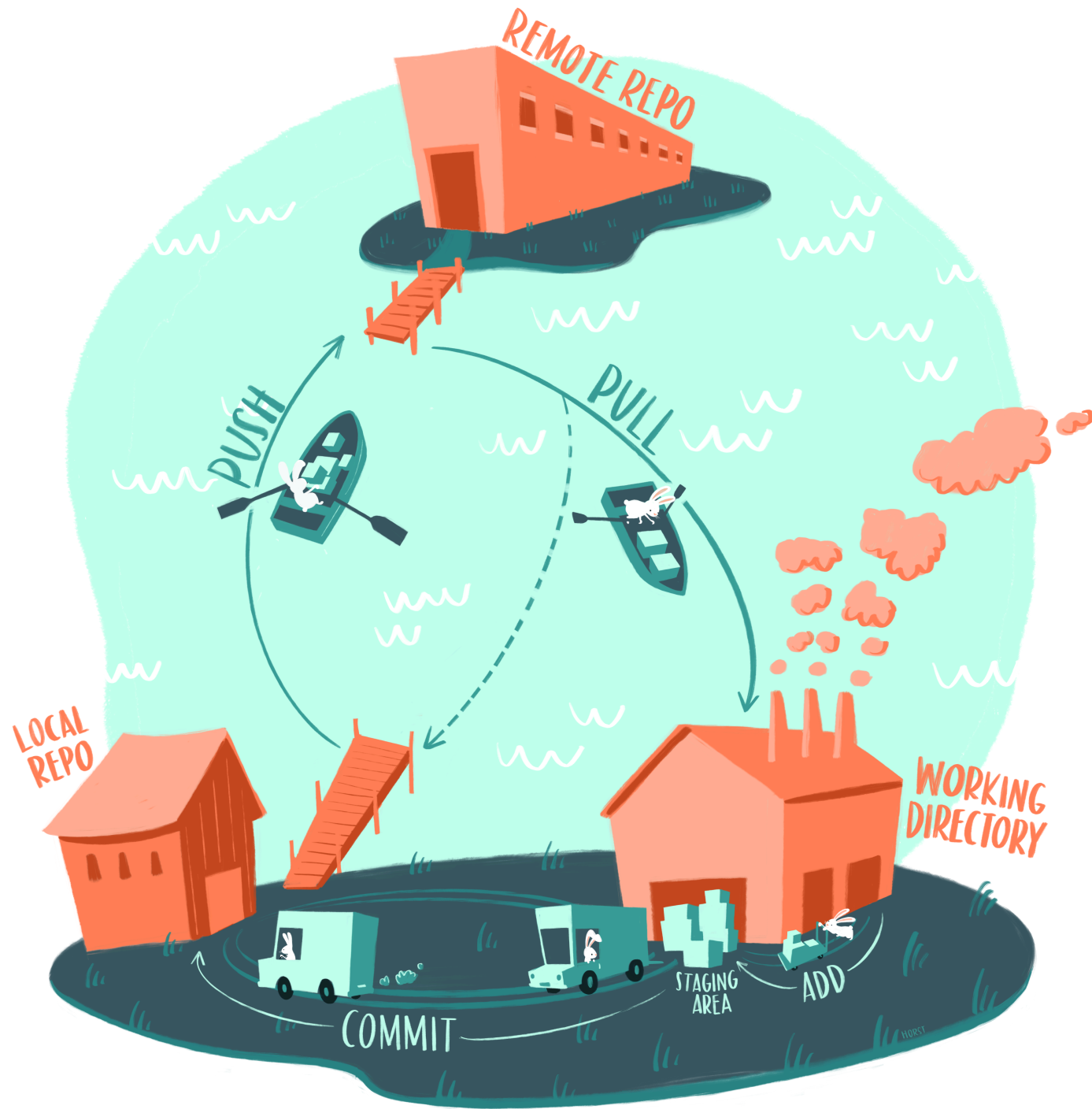
New projects

2. Choose a name for your new project and where to store it on your computer
 - Check “Create a git repository”
 - This gets you all set to connect to GitHub and creates a `.gitignore` file
 - You can leave “Use renv with this project” unchecked (we’ll be introducing the `{renv}` package later!)

Initial Git commit

3. Stage and commit the files

- I usually use “initial commit” as my first commit message since I haven’t done anything yet!
- We can’t yet push because we haven’t connected to a remote repository

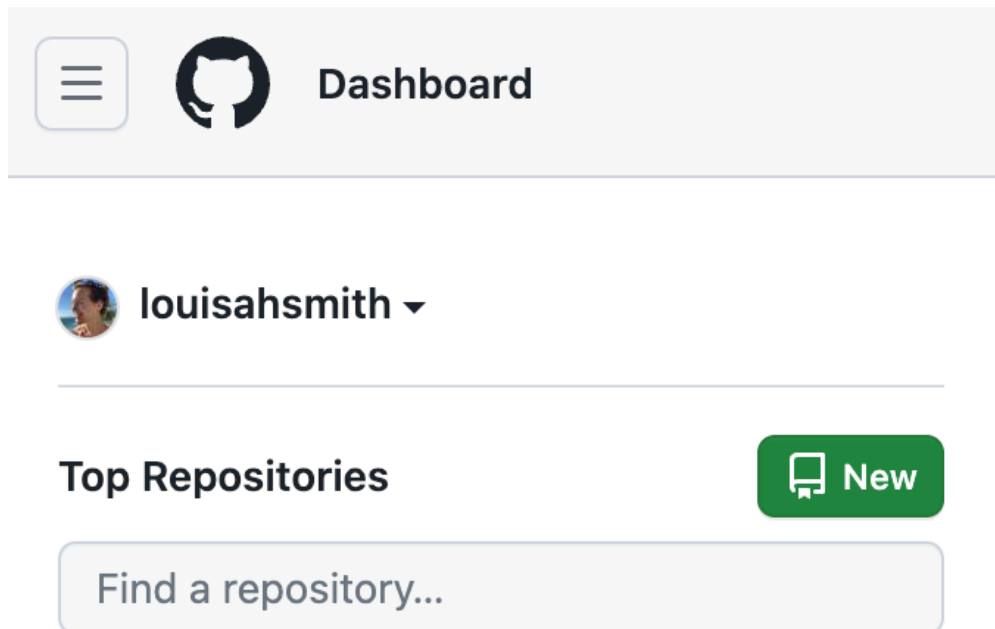


Creating a new repo on GitHub

4. Open up your web browser to GitHub and make a new repository

From github.com

From github.com/username



Repository options

5. Choose a name (preferably one that matches the name you gave your R project).
- You can choose to make it private, if you wish
 - Private repos have fewer features *unless* you have GitHub Pro (which you can get for free as a student with the [GitHub student developer pack!](#))
 - You don't need to click anything else

Connect the local to the remote

- You created your local repo with RStudio in a directory you chose
 - Now you need to connect it to the remote repo on GitHub
6. Copy the code from the second section: “push an existing repository from the command line” in the *terminal* within RStudio.

Connect the local to the remote

7. Run the three lines of code *one at a time*, then refresh your GitHub page!



The screenshot shows a terminal window with three tabs: 'Console', 'Terminal', and 'Background Jobs'. The 'Terminal' tab is active, showing a terminal session for 'Terminal 1'. The user is at the prompt 'l.smith@FACC02G67R6Q05N final-project %'. They have entered three commands: 'git remote add origin https://github.com/louisahsmith/final-project.git', 'git branch -M main', and 'git push -u origin main'. The output shows an error: 'error: src refspec main does not match any' followed by a red error message: 'error: failed to push some refs to 'https://github.com/louisahsmith/final-project.git''. The prompt is now 'l.smith@FACC02G67R6Q05N final-project %' with a cursor.

```
l.smith@FACC02G67R6Q05N final-project % git remote add origin https://github.com/louisahsmith/final-project.git
git branch -M main
git push -u origin main
error: src refspec main does not match any
error: failed to push some refs to 'https://github.com/louisahsmith/final-project.git'
l.smith@FACC02G67R6Q05N final-project %
```

`.gitignore`

You likely don't want to push everything to GitHub, even if you have a private repository

- Be especially careful about data and passwords
- You also can't push very large files (>100 mb)

A `.gitignore` is a special text file that tells Git not to track certain files

- RStudio starts you off with a few entries, including `.Rhistory` since no one needs to see everything you've run in R!

`.gitignore` exercises

8. Create a new file called `secrets.txt` within this new repo
 - Write down your deepest, darkest secrets and save (e.g., I am scared of spiders)
9. Open `.gitignore` via the RStudio filepane
 - Add “secrets.txt” below the files that RStudio helpfully ignored for you
 - Save

Keep your eye on the Git pane!

Starting the final project

10. Set up your folders how you'd like in your repo (you can always change this)

- Find some data, download it, and store it in your repo
- Commit and push to GitHub!

For your final project, your data must be something that can be stored online and accessed by me.

Some fun options for data are:

- <https://data.fivethirtyeight.com/>
- <https://github.com/rfordatascience/tidytuesday#datasets>
- <https://github.com/higgi13425/medicaldata/tree/master/data>
(descriptions: <https://higgi13425.github.io/medicaldata/#list-of-datasets>)

Exercises

Get started making a new project and GitHub repo for your final project, editing the `.gitignore` file, and finding some fun data

You can always change anything you want later, and even delete the whole thing and start fresh!

15 : 00