

Version Control w/ R



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rladies-eastlansing.github.io | [@RLadiesELansing](https://twitter.com/RLadiesELansing)

To begin: <https://github.com/rladies-eastlansing/2019-workshop-git/blob/master/Setup-instructions.md>

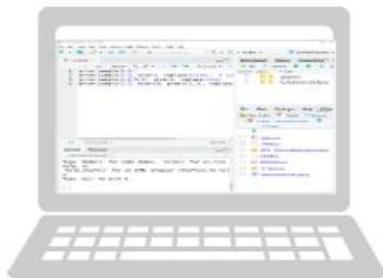
Register for a GitHub account

Install Git

Install a Git client

Install/upgrade your R and R studio versions

GIT



LOCAL

GITHUB, GITLABS, BITBUCKET



GitHub



GitLab



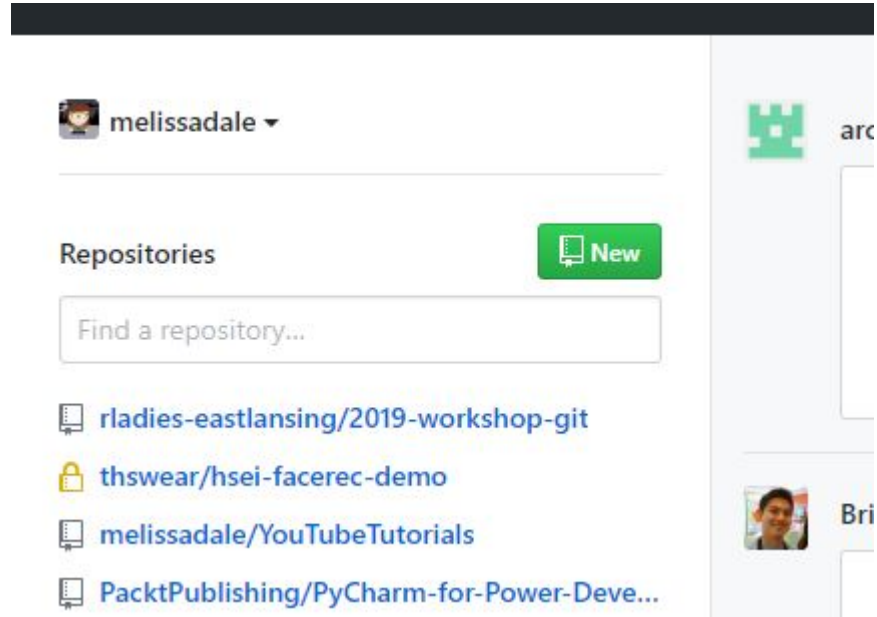
Bitbucket

HOST

Making a Repository on GitHub

Log into GitHub.com

Click green “New” button



Making a Repository on GitHub

Log into GitHub.com

Click green “New” button

Fill out details and create repository:

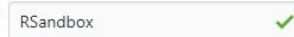
Create a new repository

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

Owner



Repository name *



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

Description (optional)

This is optional, but a good idea, ESPECIALLY if public



Public

Anyone can see this repository. You choose who can commit.



Private

You choose who can see and commit to this repository.

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

☒ Initialize this repository with a README

This will let you immediately clone the repository to your computer.

Add .gitignore: None

Add a license: MIT License



Create repository

Jump to...



Pull requests

Issues

Marketplace

Explore

melissadale / RSandbox

Unwatch ▾

1

★ Star

0

🍴 Fork

0

<> Code

! Issues 0

🔗 Pull requests 0

📁 Projects 0

📖 Wiki

🛡 Security

📊 Insights

⚙ Settings

This is optional, but a good idea, ESPECIALLY if public

Edit

[Manage topics](#)

🕒 1 commit

🌿 1 branch

📦 0 releases

👤 1 contributor

📄 MIT

Branch: master ▾

New pull request

Create new file

Upload files

Find file

Clone or download ▾



melissadale Initial commit

📄 LICENSE

Initial commit

📄 README.md

Initial commit

📖 README.md

Clone with HTTPS ?

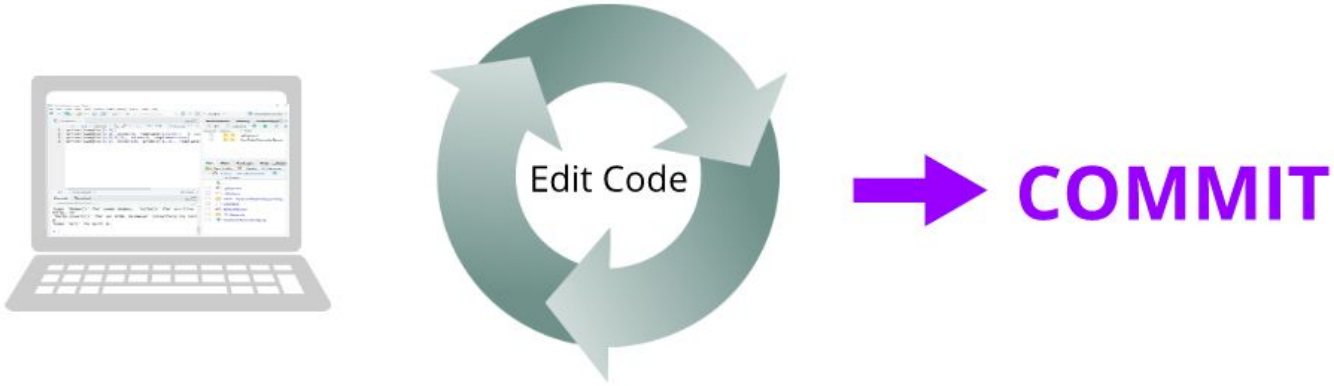
[Use SSH](#)

Use Git or checkout with SVN using the web URL.

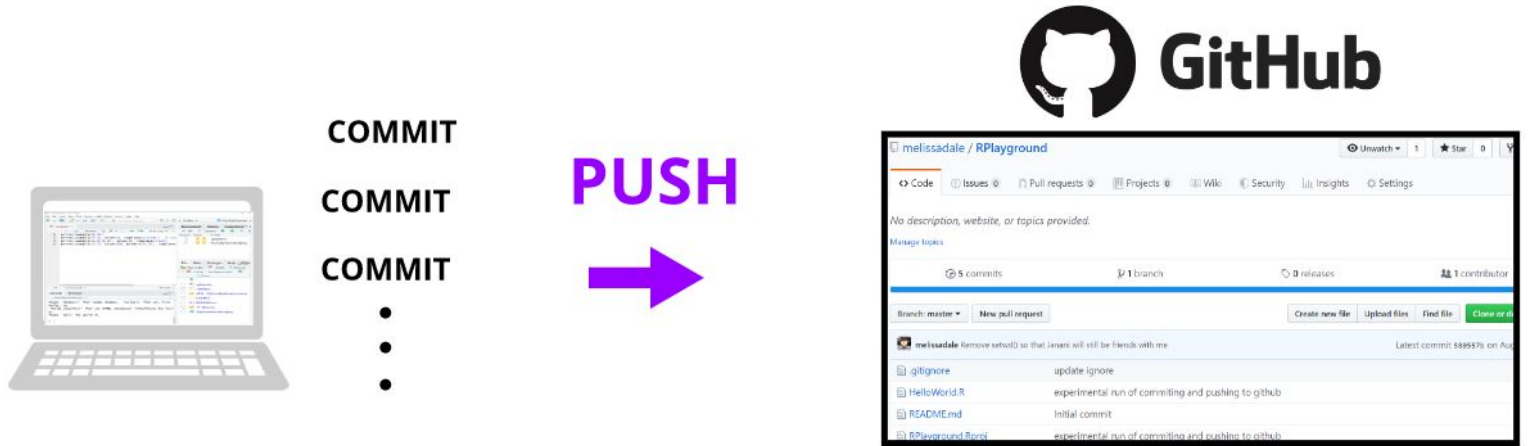
<https://github.com/melissadale/RSandbox>[Open in Desktop](#)[Download ZIP](#)

Some minimal terminology

On your own machine - LOCAL

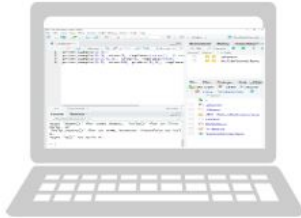


Pushing - update LOCAL branch commits to HOST

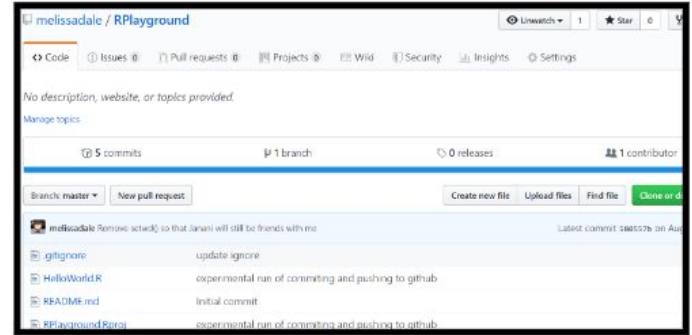


REPO: www.github.com/YOU/project

Pulling - update LOCAL **from** corresp. HOST branch



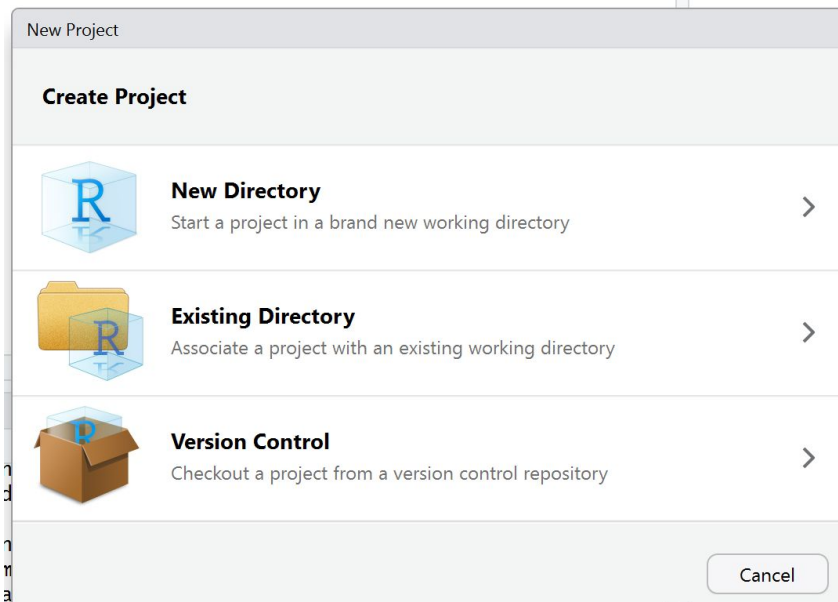
PULL



REPO: www.github.com/YOU/project

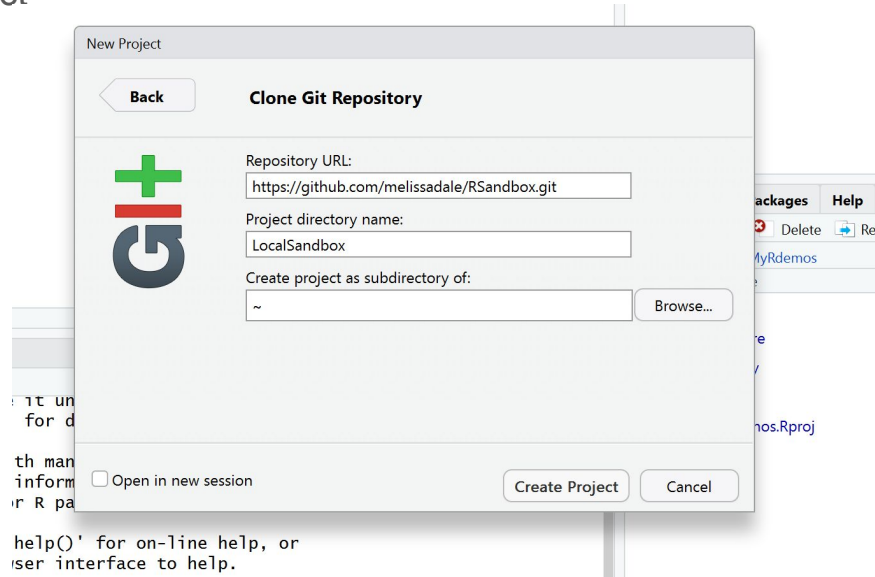
Now to R-Studio

1. How to get existing code (on LOCAL) TO your GitHub Repository (Push)
 - a. Open R-Studio, create new project, Version Control



Now to R-Studio

1. How to get existing code TO your GitHub Repository (Push)
 - a. Open R-Studio, create new project, Version Control
 - b. GIT, Fill Out Form (cloned address from github, local directory name, save location)
 - c. Create Project

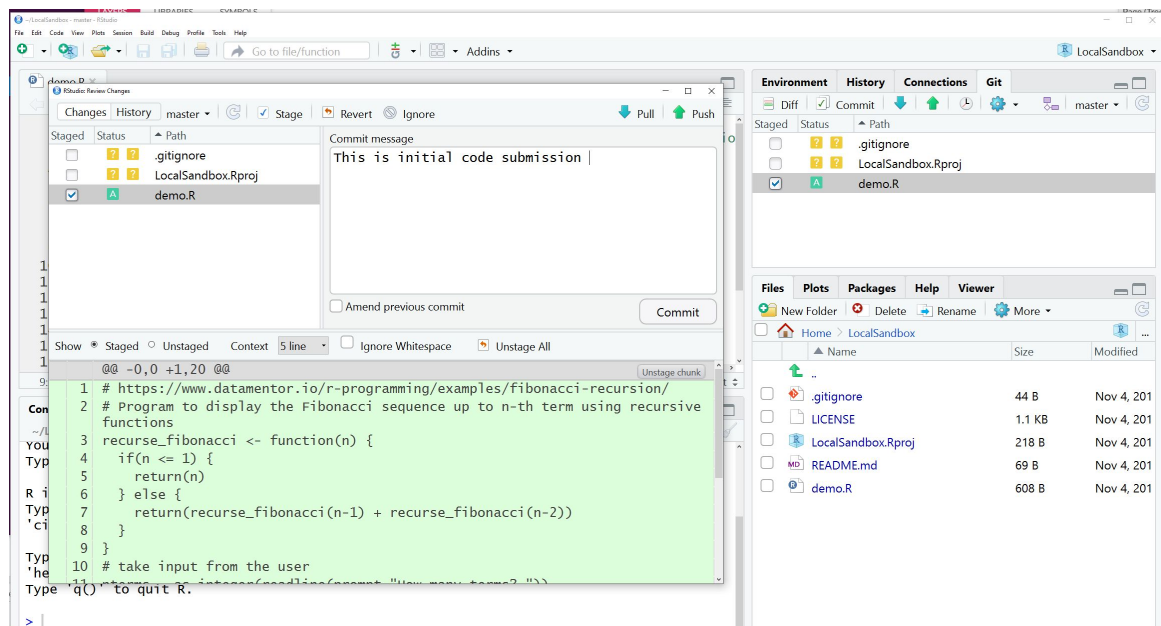


Now to R-Studio

2. Copy existing scripts, or create new R scripts

3. Click on Git, Commit (with commit message)

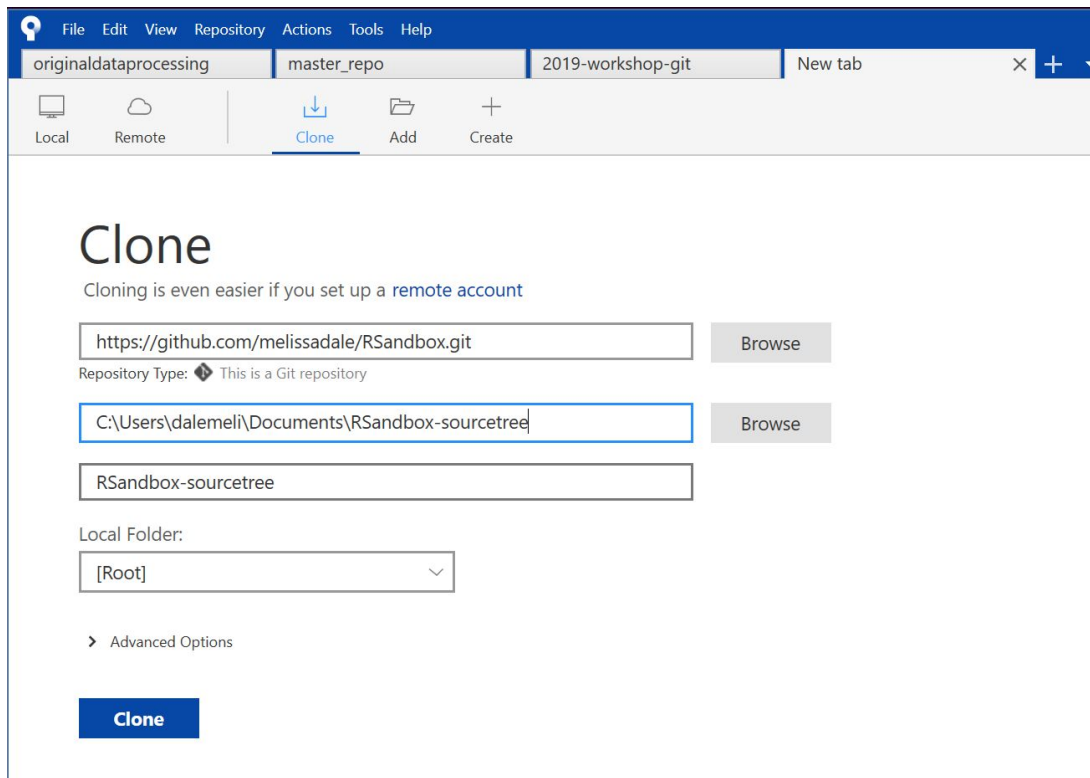
4. Push



See your stuff on GitHub!

Now to Source Tree (or whatever client)

1. File “Clone/New”
2. Add Repo Address
3. Clone



Probably Looks like this (See, there's our last commit!)

The screenshot shows the GitHub web interface for a repository named '2019-workshop-git'. The interface is divided into several sections:

- Header:** Includes the GitHub logo, navigation links (File, Edit, View, Repository, Actions, Tools, Help), and the repository name '2019-workshop-git'.
- Toolbar:** Contains icons for Commit, Pull, Push, Fetch, Branch, Merge, Stash, Discard, and Tag.
- Left Sidebar:** Includes 'WORKSPACE' (File Status, History, Search), 'BRANCHES' (master), 'TAGS', 'REMOTES', and 'STASHES'.
- Commit History Table:** A table with columns for Graph, Description, Date, Author, and Commit. It shows two commits: 'Initial commit' (4 Nov 2019 16:38) and 'This is initial code submission' (4 Nov 2019 16:59).
- Commit Details:** Below the table, the details for the selected commit (56ea904) are shown, including the commit message, parents, author, date, and committer.
- File Contents:** A section showing the contents of the selected file, with a 'Reverse hunk' button.

Graph	Description	Date	Author	Commit
	Initial commit	4 Nov 2019 16:38	Melissa R Dale <melissa.r.dale@gmail>	99e84c1
	This is initial code submission	4 Nov 2019 16:59	Melissa Dale <melissa.r.dale@gmail>	56ea904

Commit Details:

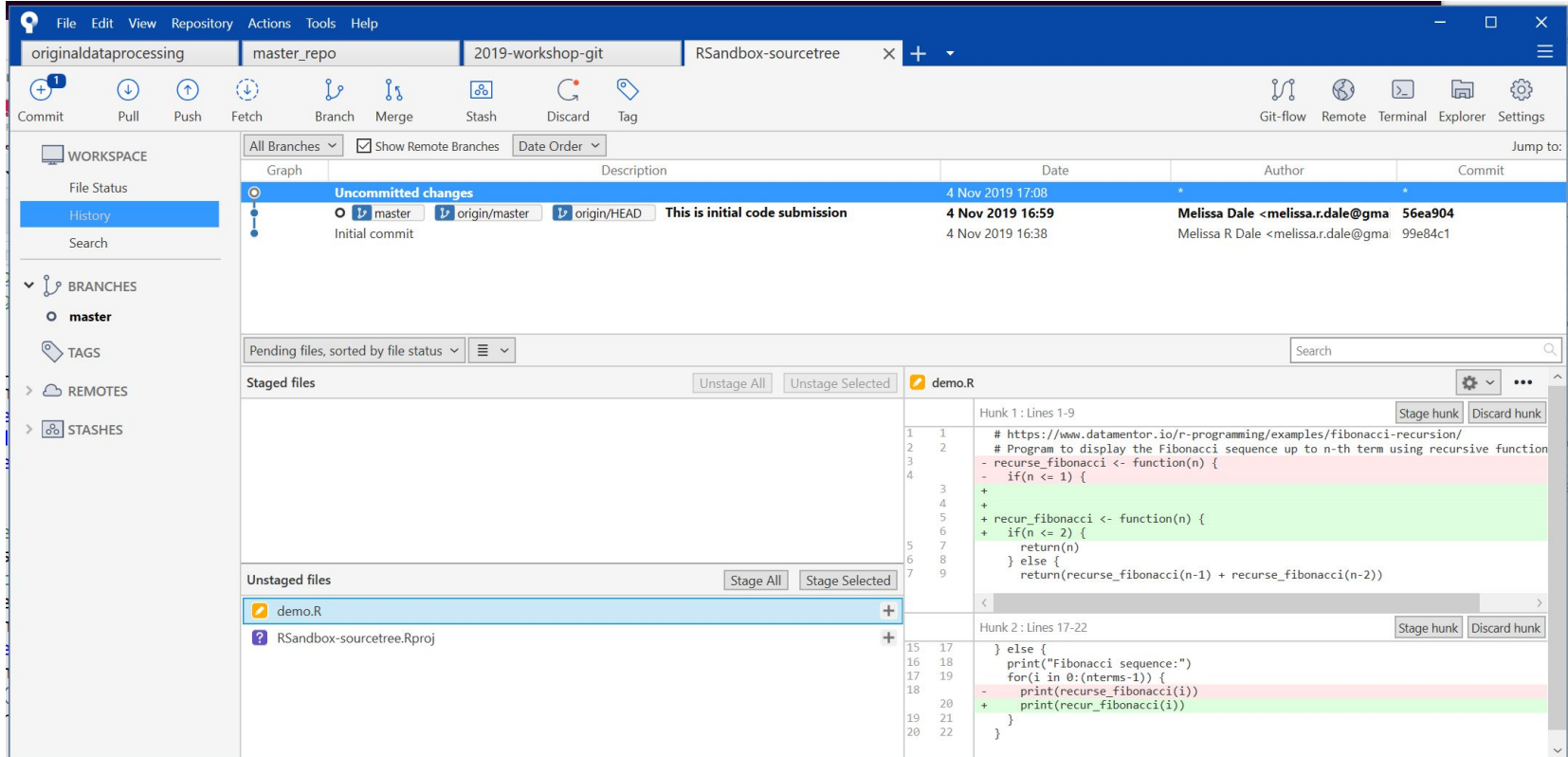
Commit: 56ea9044ec6de6731beba8a94eaa2c05bf9e876 [56ea904]
Parents: 99e84c11e1
Author: Melissa Dale <melissa.r.dale@gmail.com>
Date: Monday, November 4, 2019 4:59:11 PM
Committer: Melissa Dale

This is initial code submission

File Contents:

```
1 + .Rproj.user
2 + .Rhistry
3 + .RData
4 + .Ruserdata
```


Make some other changes, now go to SourceTree



Again Commit, comment, and push

Commit

Stage desired commits

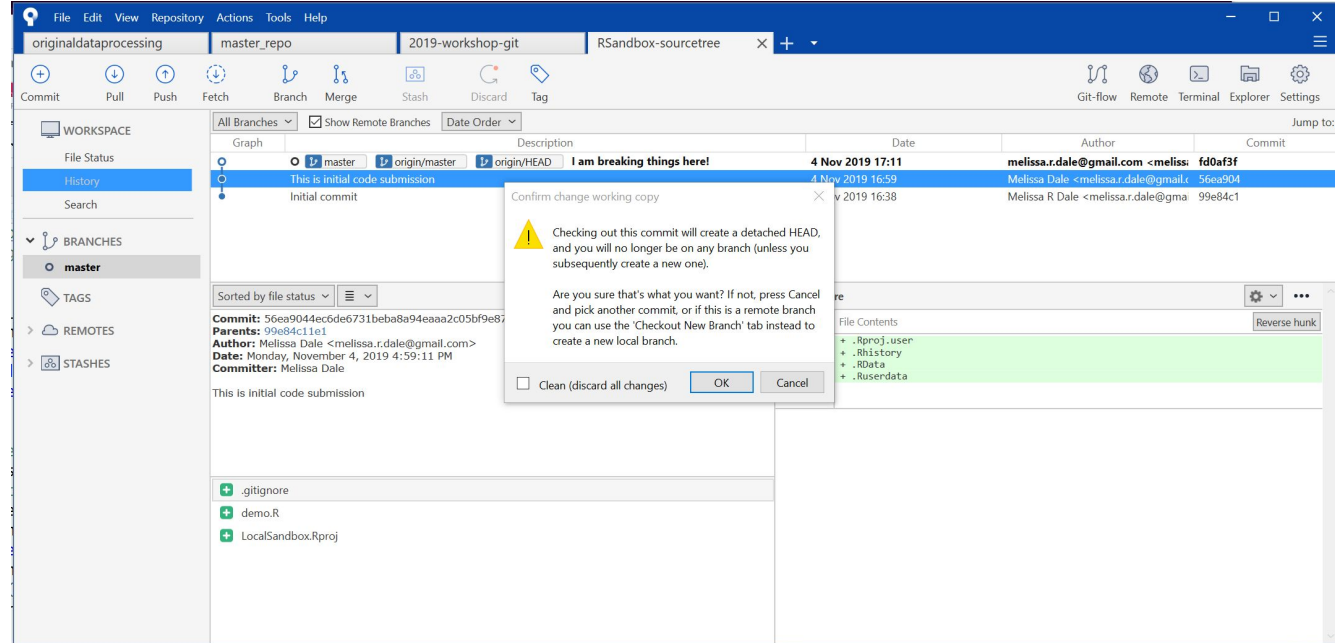
Comment

Commit button

Push

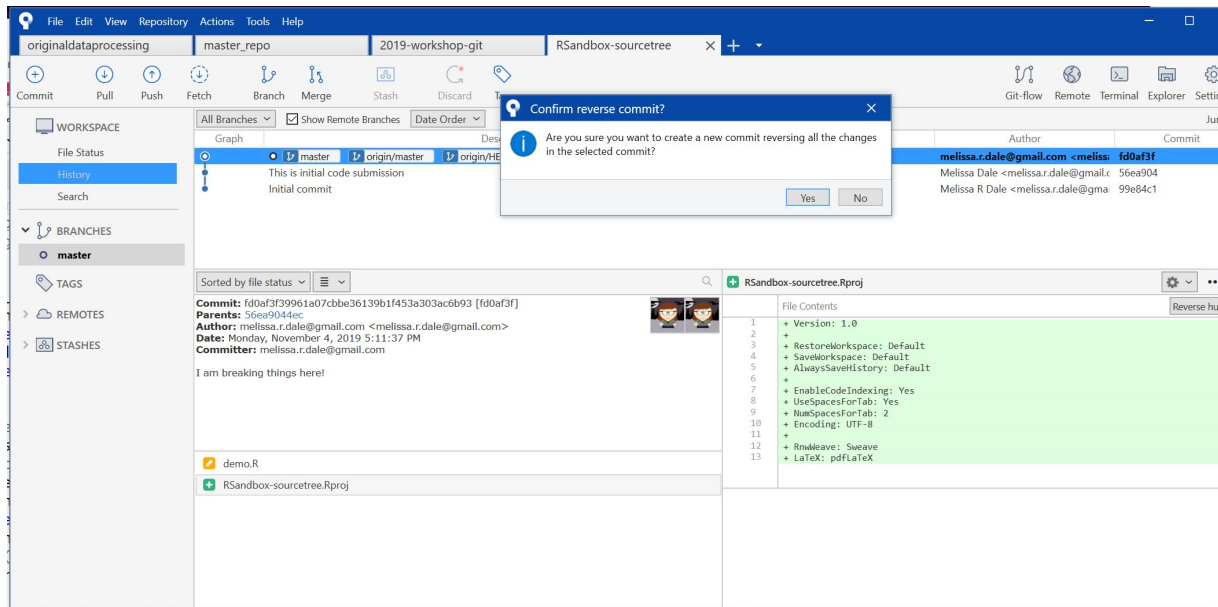
Reset! In Source Tree

Double click previous commit



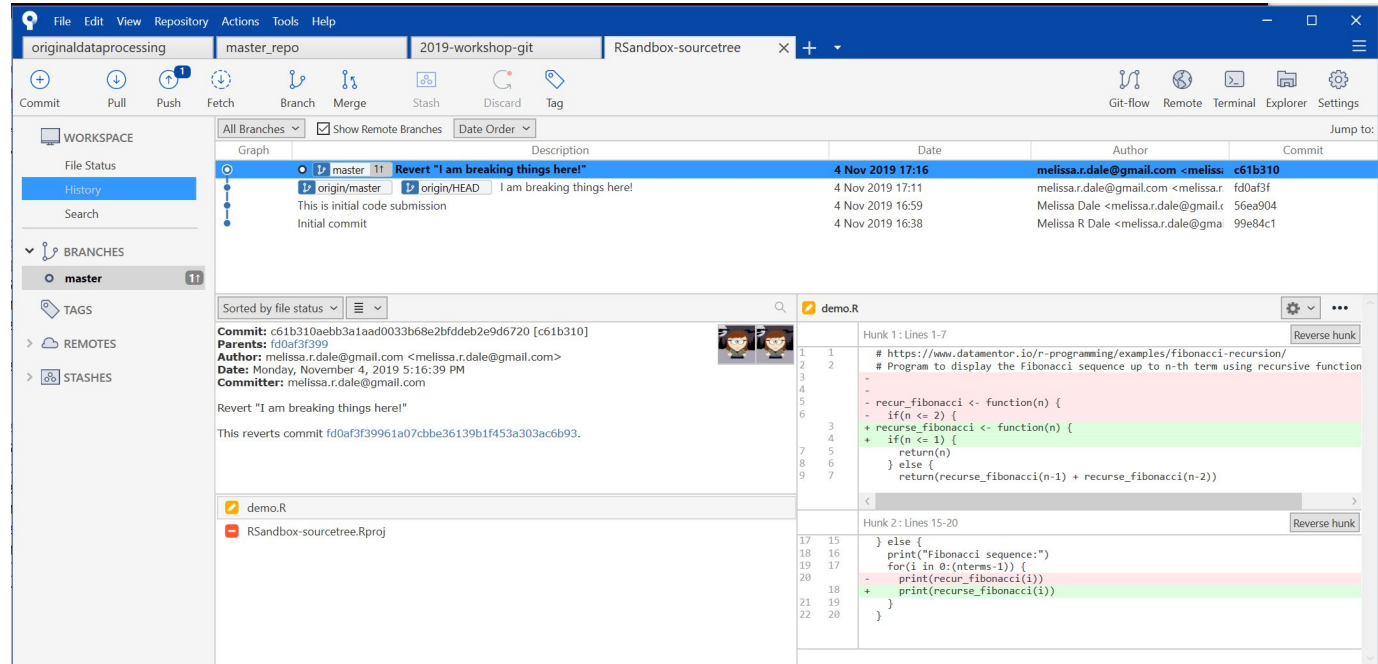
Reset! In Source Tree

Right-click version to undo, reverse commit:



Reset! In Source Tree

Right-click version to undo, reverse commit:



FileEditViewRepositoryActionsToolsHelp

originaldataprocessing

master_repo

2019-workshop-git

RSandbox-sourcetree

2019-workshop-git2

+

+

Commit

↓

4

Pull

↑

Push

↻

Fetch

↕

Branch

↕

Merge

⊞

Stash

↺

Discard

🏷

Tag

↕

Git-flow

🌐

Ren

WORKSPACE

File Status

History

Search

BRANCHES

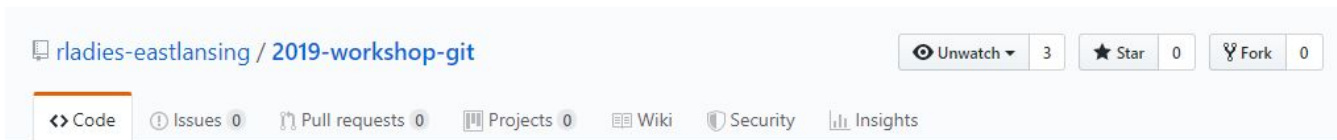
All Branches

Show Remote Branches

Date Order

Graph	Description	Date
<div>↕ origin/master</div> <div>↕ origin/HEAD</div>	Merge pull request #1 from melissadale/master	11 Nov 2019
	Plot the sample points.	11 Nov 2019
	d	6 Nov 2019 1
	Update README.md	6 Nov 2019 1
<div>🔴 master</div> <div>4↓</div>	This is a trivial R script, so others can practice cloning code from other Repos (possibly forking demo, time permitting)	4 Nov 2019 1
	Added link to R/RStudio instructions on GDrive.	24 Oct 2019 1
		24 Oct 2019 1

Cloning vs Forking

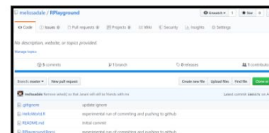


Workshop: Intro to Version Controlling (git) with R

git github workshop r r-ladies

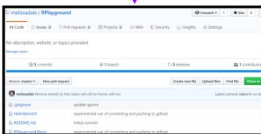
Clone = download to LOCAL

Fork = copy to my HOST



REPO: www.github.com/SOMEOTHER/project

FORK



REPO: www.github.com/YOUR/project

REPO: www.github.com/otherforks/project

Other terms

