Before we start today...

- Create a Github account
- If possible (or necessary), install Git in your computer (check `https://happygitwithr.com/install-git.html`)

Git for Social Scientists: Introduction to Version Control with Git

Tomoya Sasaki[1]

Massachusetts Institute of Technology

October 20th, 2023

[1]This slide deck is heavily inspired by the workshop materials by Suyeol Yun and Shiro Kuriwaki.

Introduction

Companies using Git

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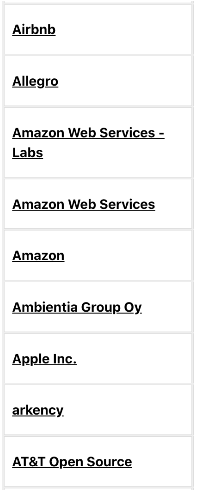

Airbnb

Allegro

Amazon Web Services - Labs

Amazon Web Services

Amazon

Ambientia Group Oy

Apple Inc.

arkency

AT&T Open Source

Companies using Github

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  - Brief introduction to these tools (how Git/Github works and how to use them)

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- I focus on Git/Github because they are extremely popular than their alternatives

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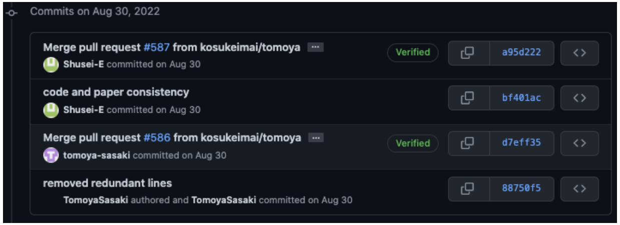

Commits on Aug 30, 2022

Merge pull request #587 from kosukeimai/tomoya
Shusei-E committed on Aug 30 — Verified — a95d222

code and paper consistency
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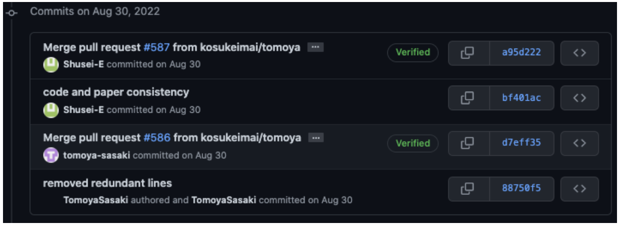

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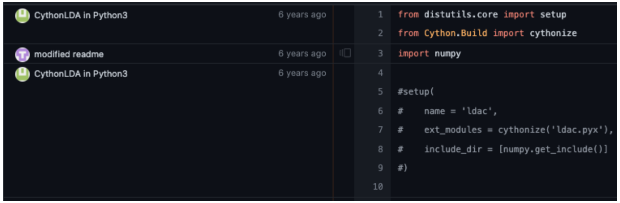

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modified readme — 6 years ago
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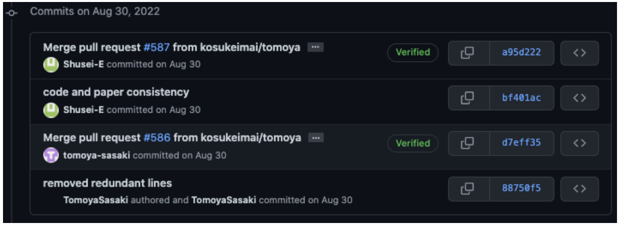
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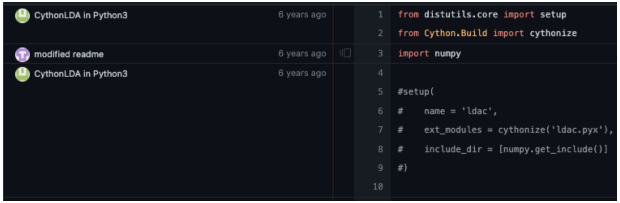
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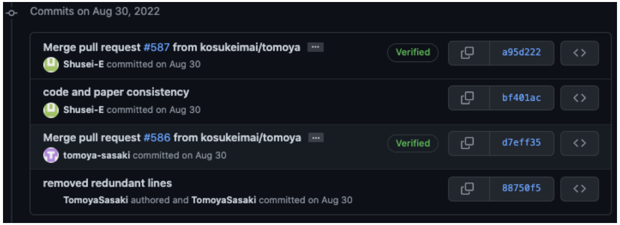

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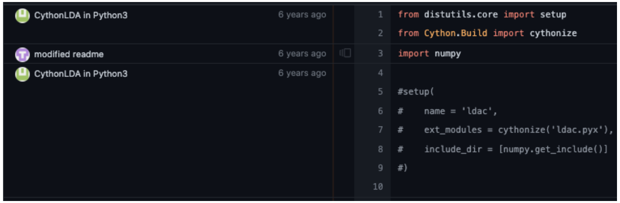

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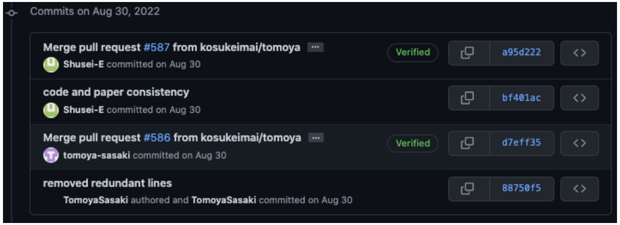

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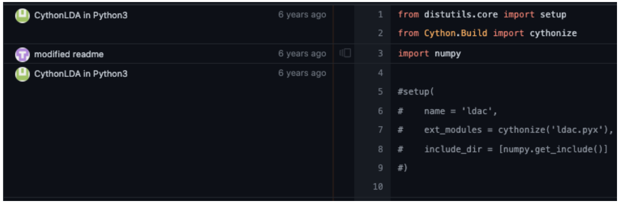

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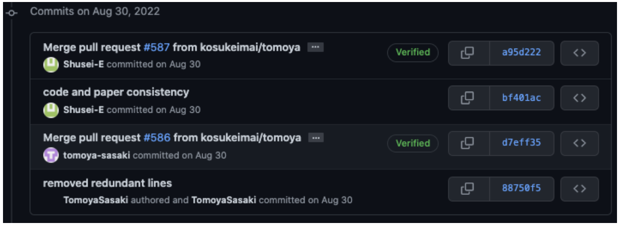
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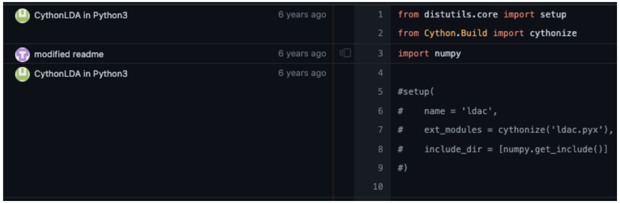
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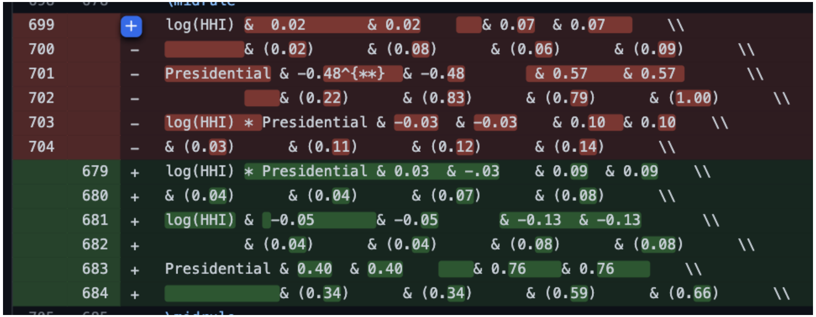

```
- log(HHI) &  0.02          & 0.02       & 0.07  & 0.07        \\
-                    & (0.02)       & (0.08)       & (0.06)       & (0.09)       \\
- Presidential & -0.48^{**}  & -0.48        & 0.57    & 0.57         \\
-                    & (0.22)       & (0.83)       & (0.79)       & (1.00)       \\
- log(HHI) * Presidential & -0.03  & -0.03     & 0.10  & 0.10      \\
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+ Presidential & 0.40   & 0.40       & 0.76     & 0.76          \\
+                    & (0.34)       & (0.34)       & (0.59)       & (0.66)       \\
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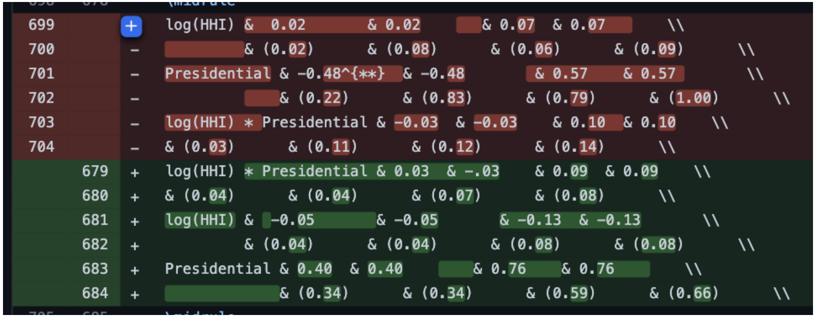
- You can check how the results change when we try different specification
- Easy to track which part of the results changed



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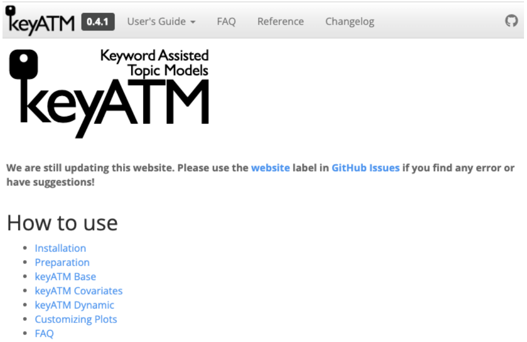
- Hosting a customizable website (free, no ads, tons of templates)



We are still updating this website. Please use the website label in GitHub Issues if you find any error or have suggestions!

How to use

- Installation
- Preparation
- keyATM Base
- keyATM Covariates
- keyATM Dynamic
- Customizing Plots
- FAQ

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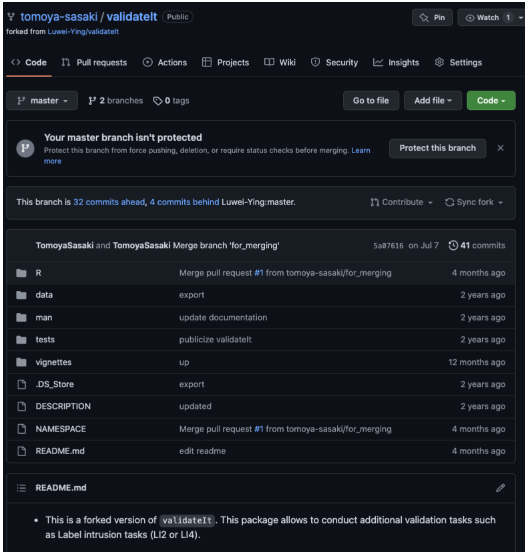
tomoya-sasaki / validateIt Public
forked from Luwei-Ying/validateIt

Your master branch isn't protected
Protect this branch from force pushing, deletion, or require status checks before merging. Learn more

This branch is 32 commits ahead, 4 commits behind Luwei-Ying:master.

TomoyaSasaki and TomoyaSasaki Merge branch 'for_merging' 5a07616 on Jul 7 41 commits

R	Merge pull request #1 from tomoya-sasaki/for_merging	4 months ago
data	export	2 years ago
man	update documentation	2 years ago
tests	publicize validateIt	2 years ago
vignettes	up	12 months ago
.DS_Store	export	2 years ago
DESCRIPTION	updated	2 years ago
NAMESPACE	Merge pull request #1 from tomoya-sasaki/for_merging	4 months ago
README.md	edit readme	4 months ago

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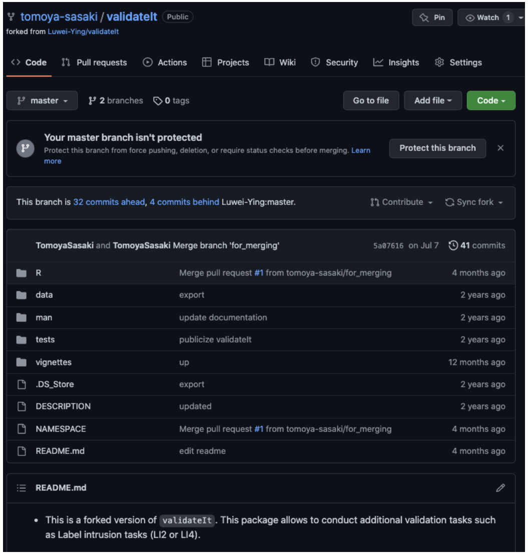

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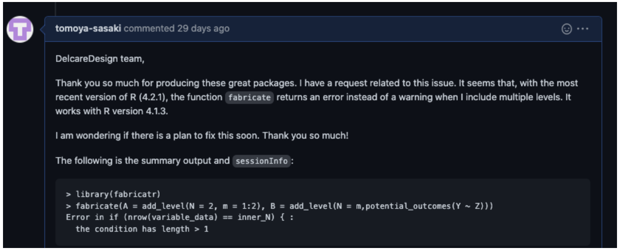
tomoya-sasaki commented 29 days ago

DelcareDesign team,

Thank you so much for producing these great packages. I have a request related to this issue. It seems that, with the most recent version of R (4.2.1), the function `fabricate` returns an error instead of a warning when I include multiple levels. It works with R version 4.1.3.

I am wondering if there is a plan to fix this soon. Thank you so much!

The following is the summary output and `sessionInfo`:

```
> library(fabricatr)
> fabricate(A = add_level(N = 2, m = 1:2), B = add_level(N = m,potential_outcomes(Y ~ Z)))
Error in if (nrow(variable_data) == inner_N) { :
  the condition has length > 1
```

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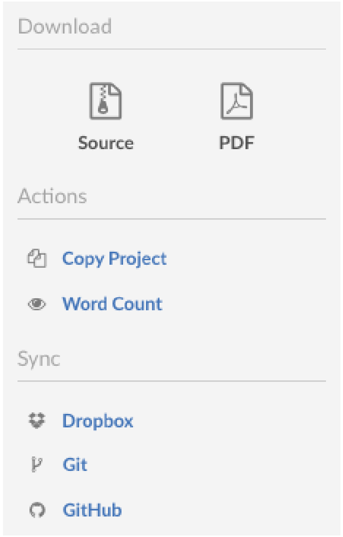
- Nice integration with popular apps/websites such as RStudio and Overleaf



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- Include huge files as well as sensitive files that contain password, API key etc in `.gitignore`

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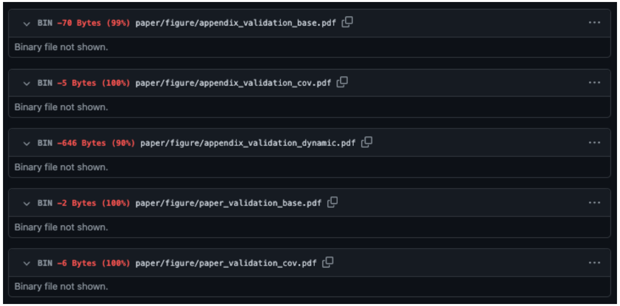

```
BIN -70 Bytes (99%) paper/figure/appendix_validation_base.pdf
Binary file not shown.
BIN -5 Bytes (100%) paper/figure/appendix_validation_cov.pdf
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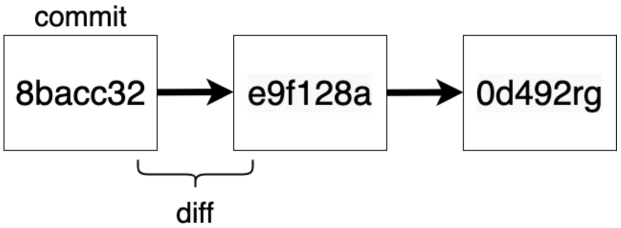

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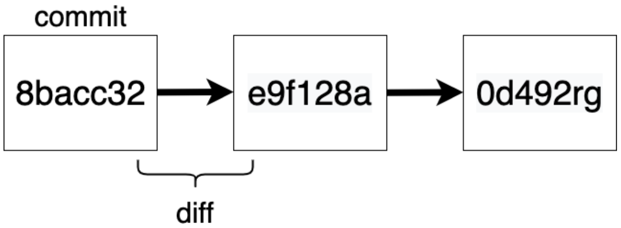

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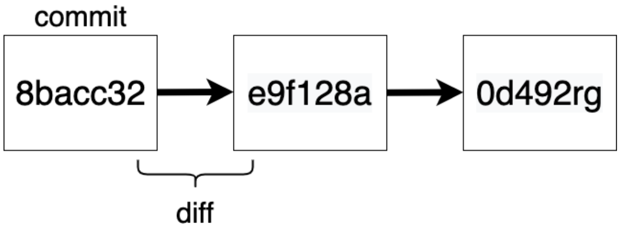

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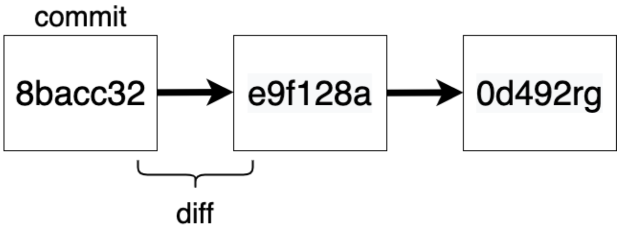

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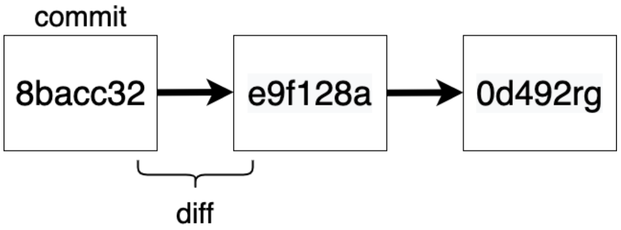

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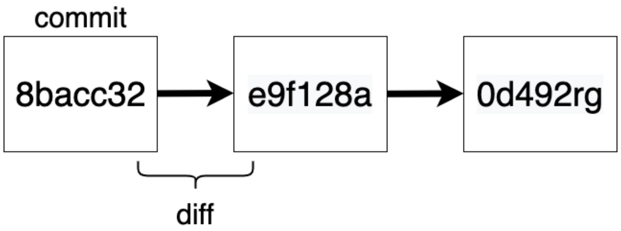

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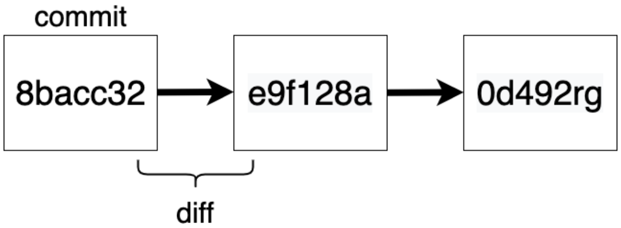

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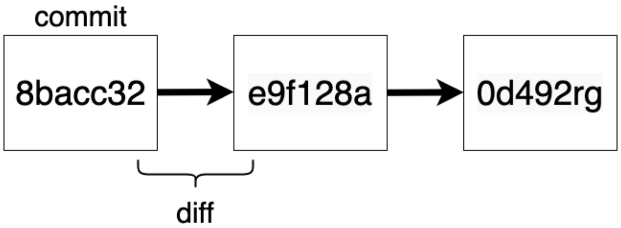

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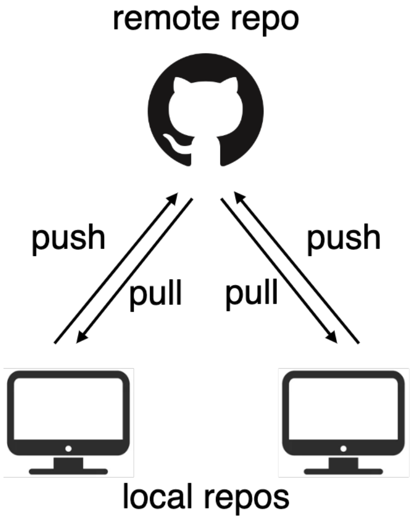

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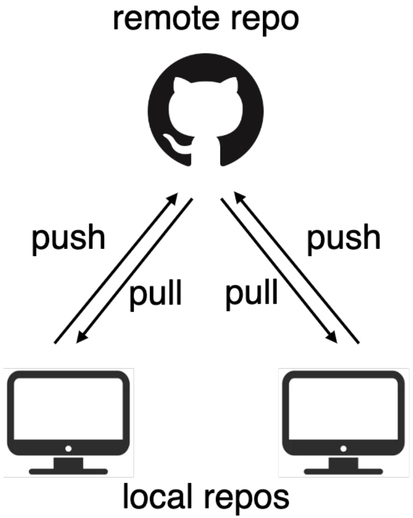

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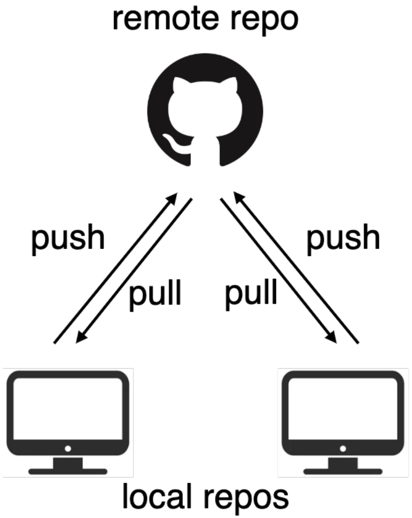

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- If you have any existing project that you want to track with Git, create a remote repo on Github, clone it to your computer (i.e., local repo), and move codes and folders into the local repo

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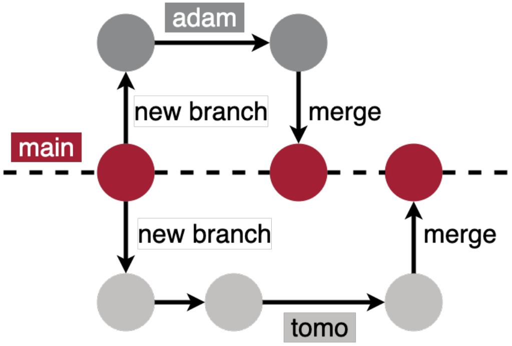

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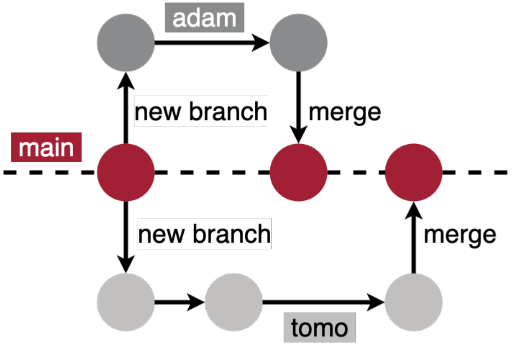
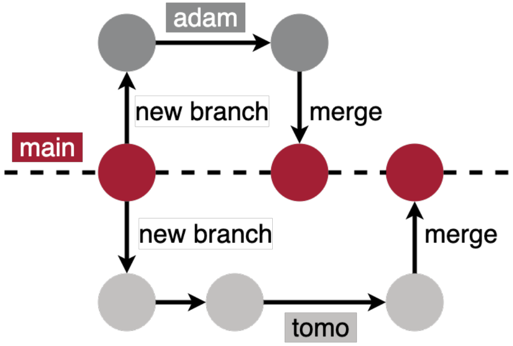


- Each circle represents “commit”
- In this example, Adam and Tomo work on the same project and each of them creates a branch

How Git/Github handle collarborative projects

- Once your work is done, open **pull request**, and **merge** your branch into the default branch



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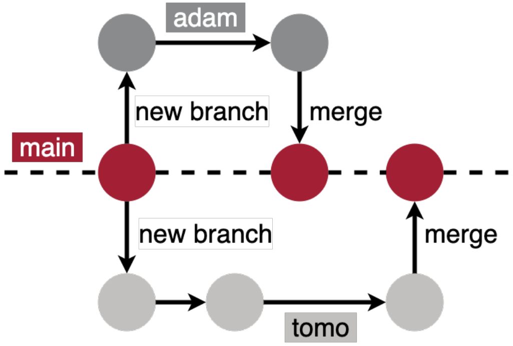

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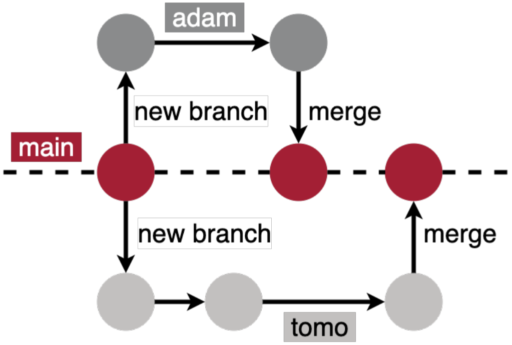

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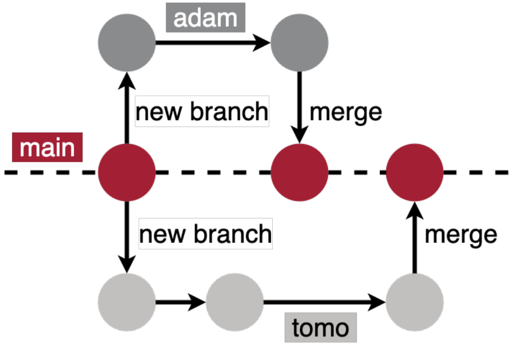
- When both of them finish their work, they open a pull request and merge their branch into the main branch



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- Let's try out with Github and RStudio

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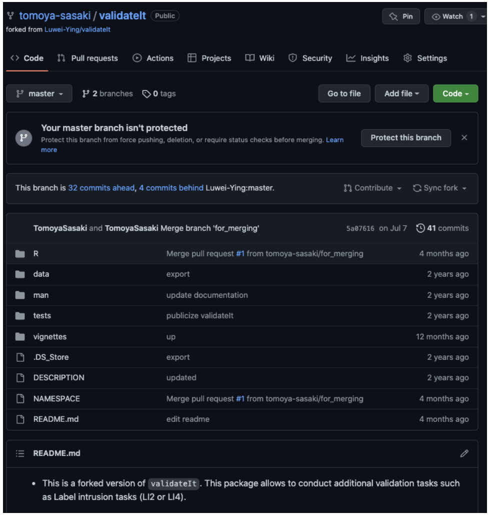

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Protect this branch from force pushing, deletion, or require status checks before merging. Learn more

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TomoyaSasaki and TomoyaSasaki Merge branch 'for_merging' 5a07616 on Jul 7 41 commits

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man	update documentation	2 years ago
tests	publicize validateIt	2 years ago
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.DS_Store	export	2 years ago
DESCRIPTION	updated	2 years ago
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README.md	edit readme	4 months ago

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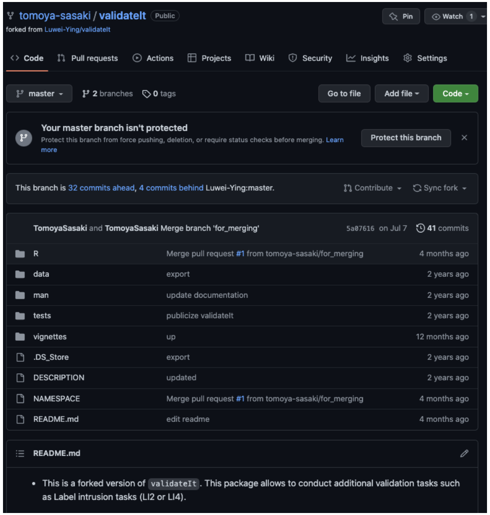

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- In my setup, I put Git repos in Dropbox but sync them only with my main computer and the same Git repos in my other computers are located in non-Dropbox folders

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- You can fix them easily by reverting

Useful resources

- Happy Git and GitHub for the useR: https://happygitwithr.com/index.html
- Git Guide: https://github.com/git-guides
- git-vs-dropbox: https://michaelstepner.com/blog/git-vs-dropbox/