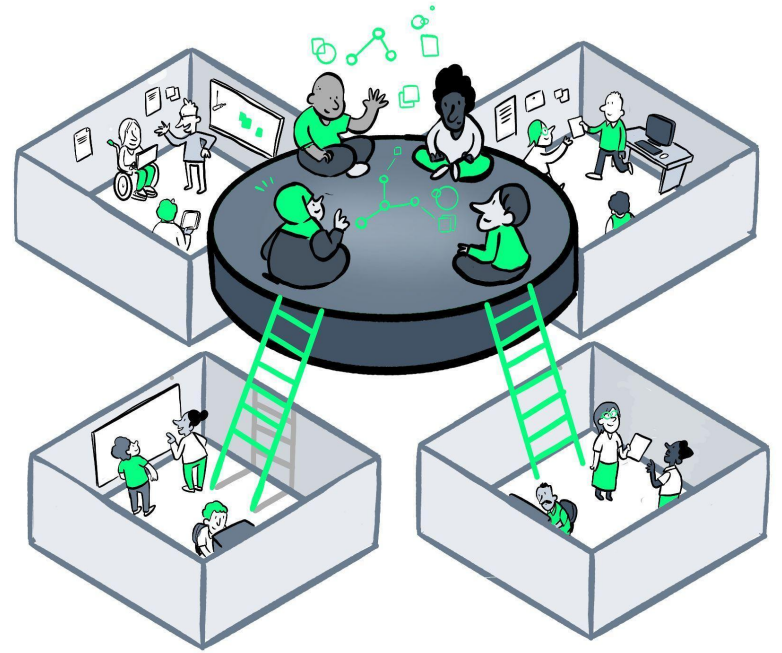

Housekeeping

- Please respect the **Code of Conduct**
- Notes from today's session are publicly available online
- Use the **post-its** provided to let us know if you need more time on activities, if you'd like me to go slower, or if you are stuck on one of the tasks.
- Please ask questions!

The Alan Turing Institute

Git Good: an Introduction to GitHub for Collaboration

Sophia Batchelor, Malvika Sharan,
Cass Gould van Praag, Emma Karoune,
Eirini Zormpa, Gabin Kayumbi.



Introductions



Malvika Sharan

Senior Researcher - Open
Research, Co-Lead - The
Turing Way, Lead -
RCM Team



**Gabin Wilfried
Kayumbi**

Senior Community
Manager, DCE



**Cassandra Gould
Van Praag**

Senior Community
Manager, TRIC:DT



Eirini Zormpa

Community Manager,
AIM RSF - Open
Collaboration



Sophia Batchelor

Research Community
Manager, AIM RSF - Public
& Patient Involvement &
Engagement (PPIE)



Emma Karoune

Senior Community
Manager, Health
(Turing-RSS Health Data
Lab & DECOVID)

Let's Git Good:



- Why use GitHub?
- What is GitHub?
- How to GitHub?
- **Exercise 1:** Finding an Issue and contributing to a project.
- Writing in Markdown
- **Exercise 2:** Editing a file and making a Pull Request.
- How to use the template repo for your challenge

Collaborative Documentation

There are challenges in developing collaborative documents...



Collaborative Documentation

There are challenges in developing collaborative documents...

Conflicting edits, different time zones, and

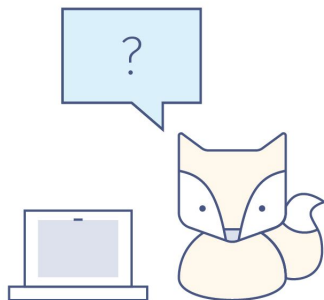


Collaborative Documentation

There are challenges in developing collaborative documents...

Conflicting edits, different time zones, and **VERSIONS!**





VERSION CONTROL



What is version control?

An approach to recording changes in a file over time so that you can:

- track their history
- review any changes and
- go back to earlier versions





Scriberia 

<https://github.com/alan-turing-institute/github-introduction>. Illustrations by Scriberia. CC-BY 4.0.

Image from Mozilla Science Lab's Study Group Orientation handbook, used under a Mozilla Public License Version 2.0



Why GitHub? ▾ Team Enterprise Explore ▾ Marketplace Pricing ▾

Search GitHub



Sign in

Sign up

Where the world builds software

Millions of developers and companies build, ship, and maintain their software on GitHub—the largest and most advanced development platform in the world.

Sign up for GitHub

56+ million
Developers

3+ million
Organizations

100+ million
Repositories

72%
Fortune 50



Git & GitHub



Git is one of the most widely used version control systems in the world. It is free and open source!

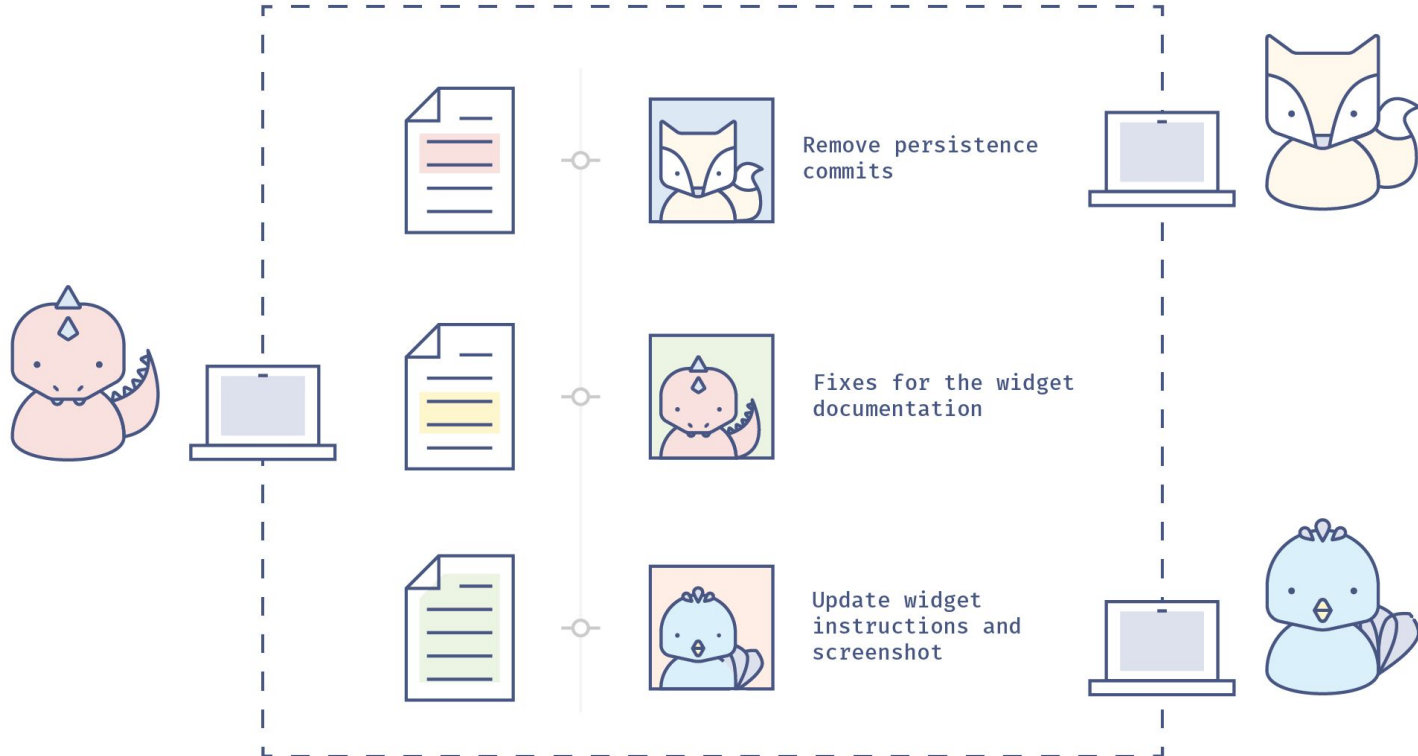
You can use git on your computer through the command line or a GUI.



GitHub is a popular **website** for hosting and sharing projects you have been tracking with git.

This allows other people to work on your project at the same time ✨

Collaboration on GitHub



GitHub Supports Collaboration

MENTORED CONTRIBUTIONS



Develop & share

FIXING LINKS



Maintain & improve



Share resources



Review and update



Make it global



Share best practices






Summary



- to **host your projects** online
- to easily **work with contributors** and collaborators
- for a **web interface** for version control

Useful for any project where a group of people are working together

GitHub Vocabulary: Repository

- Repository (repo) 
- Commit 
- Branch & Fork 
- Pull request 
- Merge 





Repository

A project where all your files are, online or on your computer.

The screenshot shows a GitHub repository page for 'aim-rsf / Glossary-of-Terms'. The repository is public and has 8 issues, 0 pull requests, 0 discussions, 0 actions, 0 projects, 0 wiki pages, 0 security alerts, 0 insights, and 0 settings. The main branch is 'main' with 4 branches and 0 tags. The repository has 6302844 commits, 18 hours ago, and 69 commits. The repository contains the following files and folders:

File/Folder	Description	Last Commit
.github	Update issue templates	20 hours ago
docs	Update glossary formatting	18 hours ago
.all-contributorsrc	docs: update .all-contributorsrc [skip ci]	23 days ago
.gitignore	Add a .gitignore file and ignore the _build directory	27 days ago
README.md	fixed typo	yesterday

The README.md file is displayed, showing a 'Welcome' message and a section titled 'About the Glossary of Terms'. The 'About the Glossary of Terms' section describes the AIM Research Support Facility (RSF), based at The Alan Turing Institute with collaborators from Swansea University and the University of Edinburgh, offers AI and advanced data science support to the research teams part of the [NIHR's Artificial Intelligence for Multiple Long-Term Conditions \(AIM\)](#) project. It also mentions that the community has compiled a [Glossary](#) of common terms relating to Health, Medicine, Artificial Intelligence,

GitHub Vocabulary: Comit

- Repository (repo) 

- Commit 

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- Pull request 

- Merge 



Commit

Saving a version of file(s)

- ‘commit’ changes with message, i.e. “Update glossary formatting”

The screenshot displays a GitHub repository interface. At the top, navigation links include 'main', '4 branches', and '0 tags'. Action buttons for 'Go to file', 'Add file', and 'Code' are visible. The commit history table shows the following entries:

Commit Message	Time Ago
Update issue templates	20 hours ago
Update glossary formatting	18 hours ago
docs: update .all-contributorsrc [skip ci]	23 days ago
Add a .gitignore file and ignore the _build directory	27 days ago
fixed typo	yesterday

The README.md file is open, showing a 'Welcome' message and a section titled 'About the Glossary of Terms'. The text in the README describes the AIM Research Support Facility (RSF) and its collaboration with The Alan Turing Institute, Swansea University, and the University of Edinburgh. It also mentions the project's goal to compile a glossary of common terms related to Health, Medicine, and Artificial Intelligence.

🔗 Commit

Saving a version of file(s)

- ‘commit’ changes with message, i.e. “Update glossary formatting”

The screenshot displays the commit history of a GitHub repository. It is divided into two sections based on the date of the commits.

Commits on Oct 12, 2022

- Update glossary formatting ...**
BrainonSilicon committed 2 days ago ✓
- Merge pull request #19 from aim-rsf/fix-links ...**
BrainonSilicon committed 2 days ago
- Update issue templates ...**
BrainonSilicon committed 2 days ago
- fixed typo ...**
eirini-zormpa committed 2 days ago
- Update about page ...**
BrainonSilicon committed 2 days ago ✓
- Update README.md ...**
BrainonSilicon and eirini-zormpa committed 2 days ago

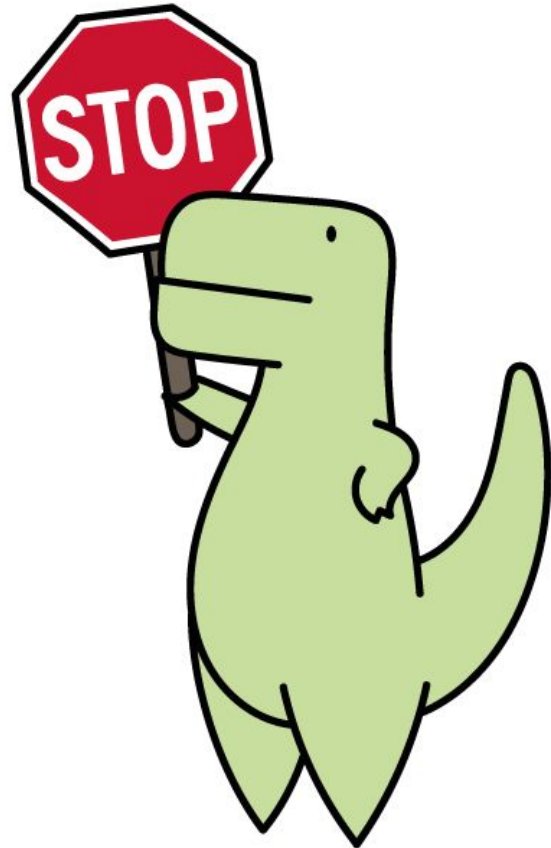
Commits on Oct 10, 2022

- Fixed broken links**
BrainonSilicon committed 4 days ago

Do you have a GitHub account?

- Go to github.com
- Sign in to your account

(if you don't have an account now is a good time to create one)



LoofandTimmy.com

Exercise 1:

Commenting on an issue.

- Go to the repository we've set up for this session.
- Comment on the issue titled "**Getting started**".



Let's Git Good:



- Why use GitHub?
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- **Exercise 1:** Finding an Issue and contributing to a project.
- **Writing in Markdown**
- **Exercise 2:** Editing a file and making a Pull Request.
- How to use the template repo for your challenge

Markdown (.md) for formatting

Markdown is a simple text based language made for quickly writing formatted text.

Great for blogs, documentation, and even writing papers.

<https://www.markdownguide.org/cheat-sheet/>

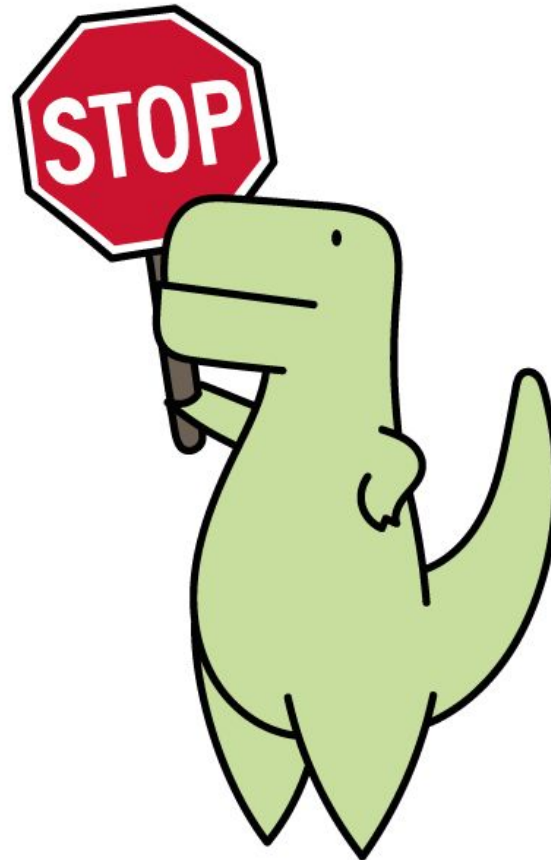


Demonstration: Editing a File in Markdown.

I'll demonstrate and we'll use
this skill later on.








Questions?



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GitHub Vocabulary: Repository

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GitHub Vocabulary: Commit

- Repository (repo) 

- Commit 

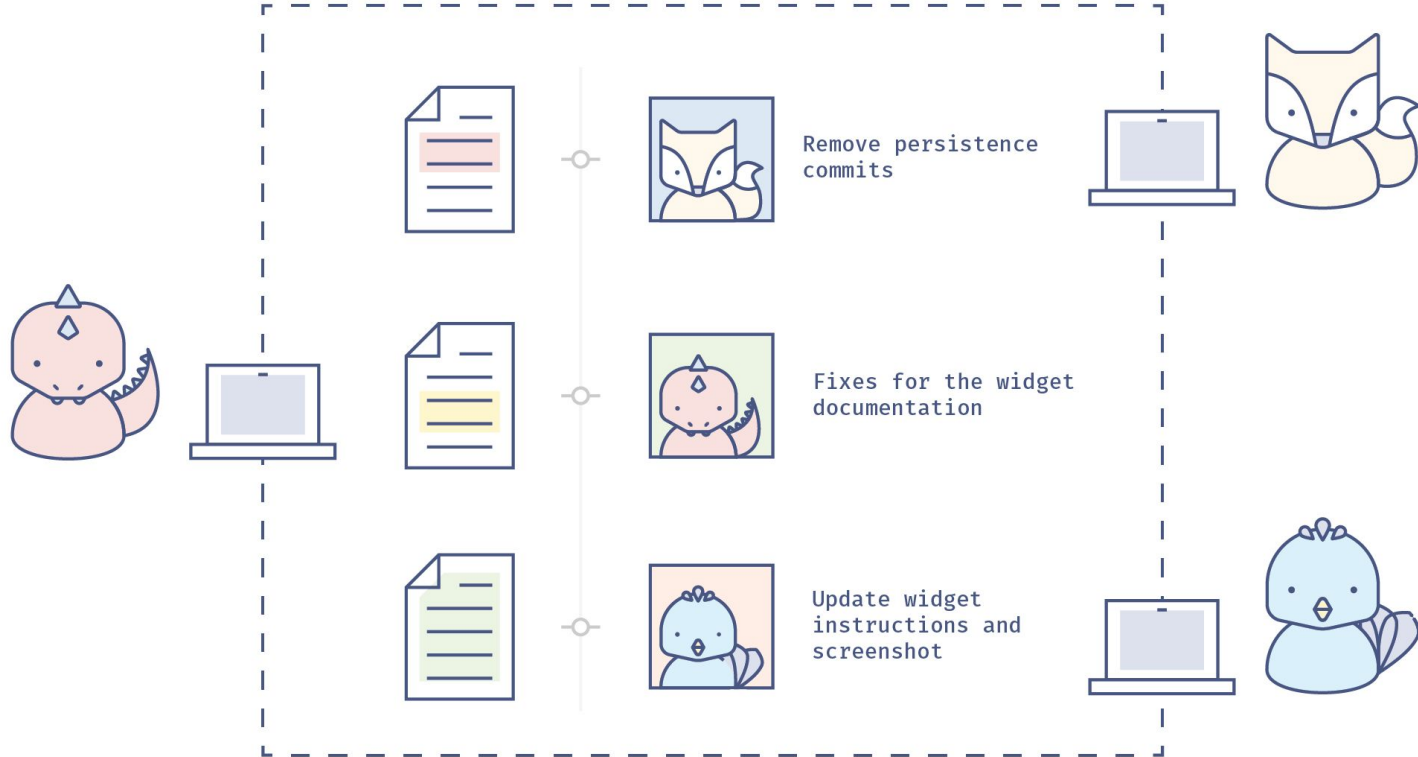
- Branch & Fork 

- Pull request 

- Merge 



Collaboration on GitHub



GitHub Vocabulary: Branch & Fork

- Repository (repo)



- Commit



- Branch & Fork



- Pull request



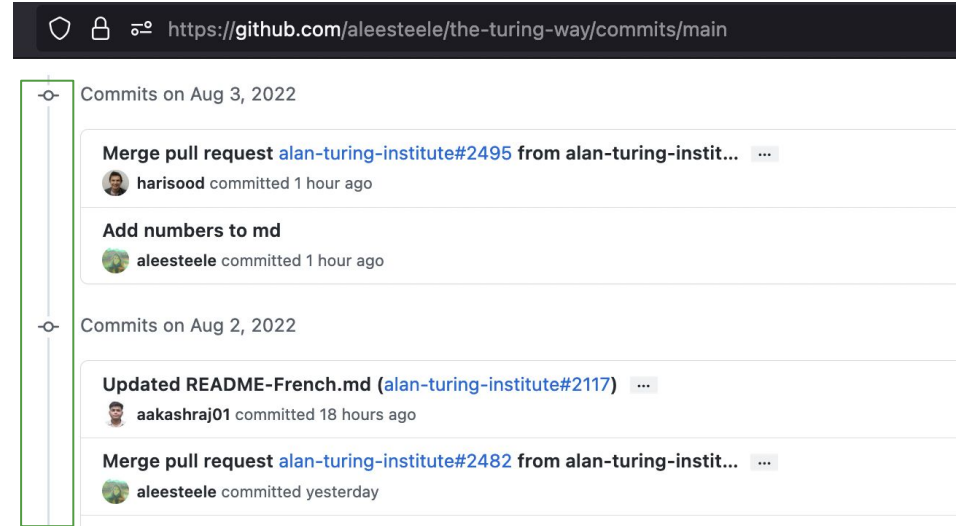
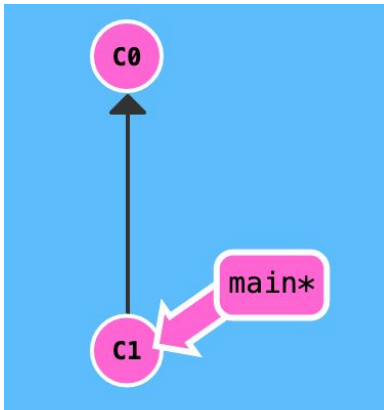
- Merge



⊖ Commit

Saving a version of file(s)

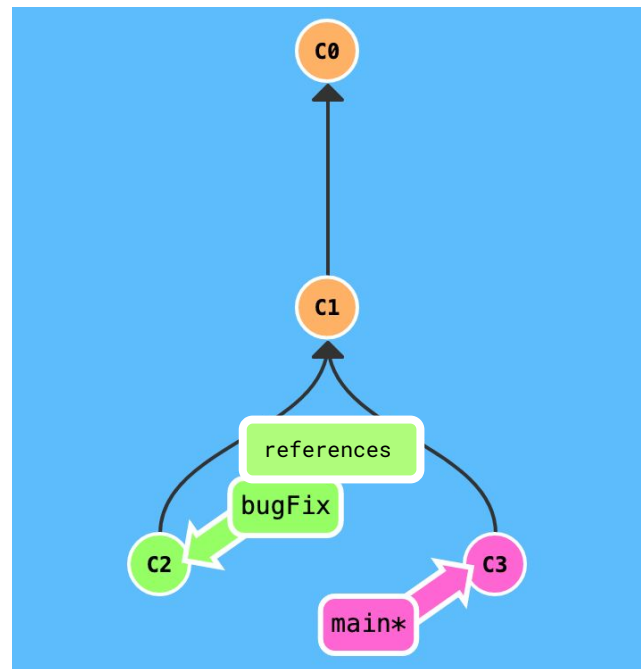
‘commit’ changes with message
(i.e. ‘Changes title’)



Branch

A temporary place in **your** repo pointing to a commit

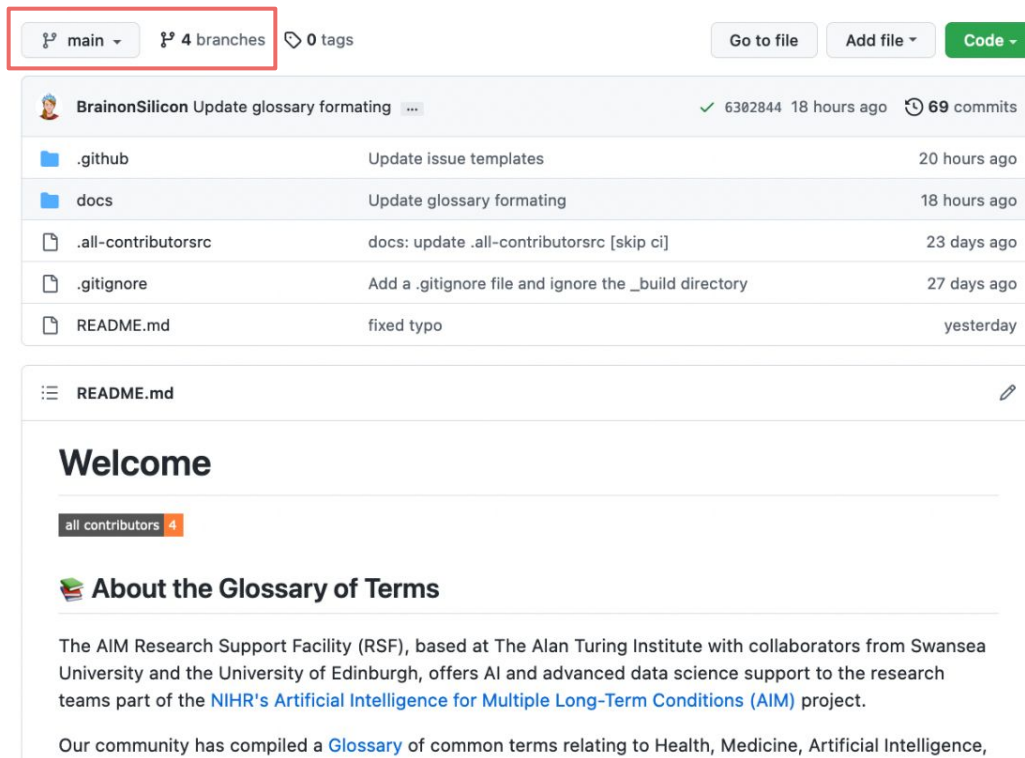
Is used to work through a feature → *requires write access to original repo*



Branch

A temporary place in **your** repo pointing to a commit

Is used to work through a feature → *requires write access to original repo*



The screenshot shows a GitHub repository interface. At the top, the 'main' branch is selected, with a red box highlighting the branch selector and the '4 branches' link. Below this, a table lists the repository's files and their latest commit details:

File	Commit Message	Time Ago
.github	Update issue templates	20 hours ago
docs	Update glossary formatting	18 hours ago
.all-contributorsrc	docs: update .all-contributorsrc [skip ci]	23 days ago
.gitignore	Add a .gitignore file and ignore the _build directory	27 days ago
README.md	fixed typo	yesterday

Below the file list, the 'README.md' file is open, showing a 'Welcome' message and a section titled 'About the Glossary of Terms'. The text describes the AIM Research Support Facility (RSF) and its collaboration with The Alan Turing Institute, Swansea University, and the University of Edinburgh. It also mentions the project's focus on AI and advanced data science support for the NIHR's Artificial Intelligence for Multiple Long-Term Conditions (AIM) project.

Branch

A temporary place in **your** repo pointing to a commit

Is used to work through a feature → *requires write access to original repo*

Active branches

[bibliography](#)  Updated 7 minutes ago by Sophia Batchelor

[references](#)  Updated 12 minutes ago by Sophia Batchelor

[fix-links](#)  Updated yesterday by eirini-zormpa

[contributions](#)  Updated 28 days ago by Sophia Batchelor

Branch vs Fork

Branch

A temporary place in **your** repo pointing to a commit

Is used to work through a feature → *requires write access to original repo*

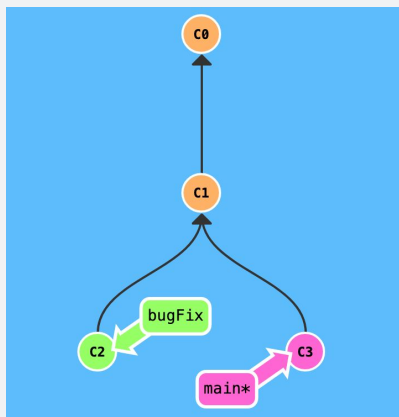
Fork

An **independent** copy of a repo

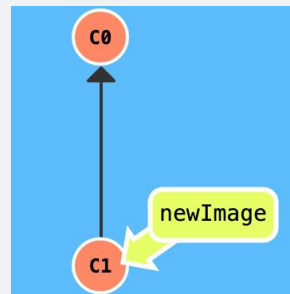
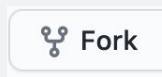
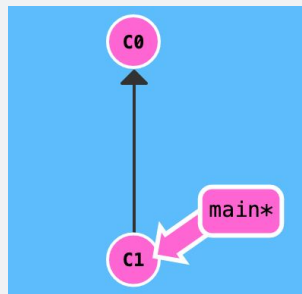
Can be used for independent work or collaboration → *does not require write access to original repo*

Branch vs Fork

Branch



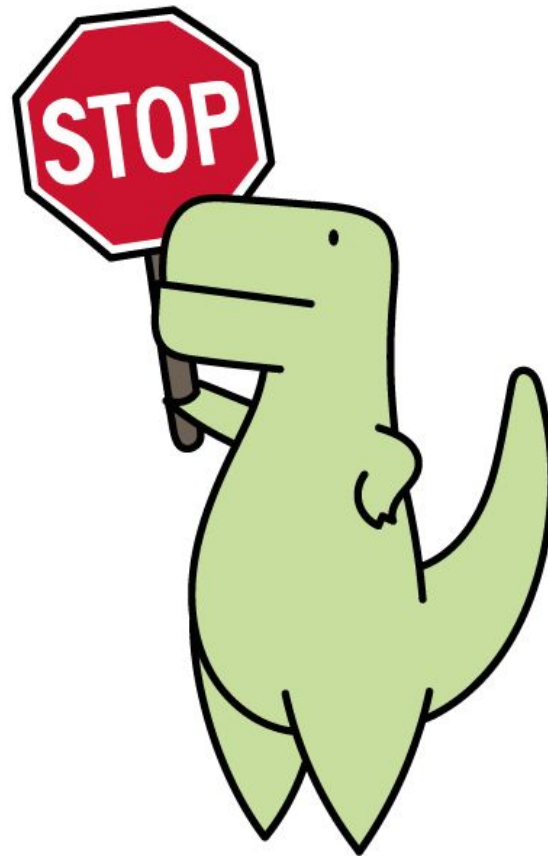
Fork



 [aim-rsf / Glossary-of-Terms](#) Public

 [eirini-zormpa / Glossary-of-Terms](#) Public
forked from [aim-rsf/Glossary-of-Terms](#)

Questions?



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GitHub Vocabulary: PRs & Merging

- Repository (repo) 

- Commit 

- Branch & Fork 

- Pull request 

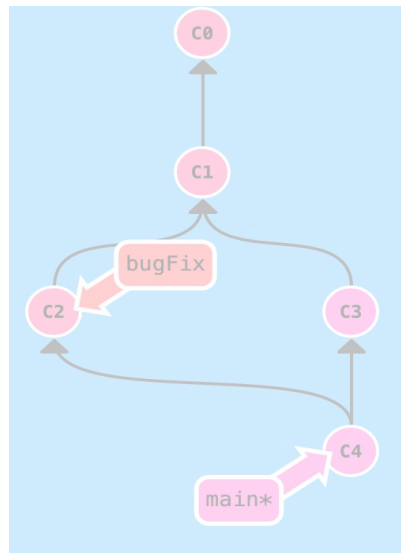
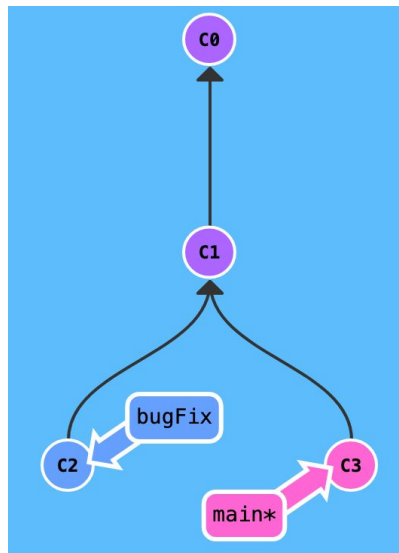
- Merge 



Pull Request & Merge

Pull request
request to add your changes from a branch back into main.

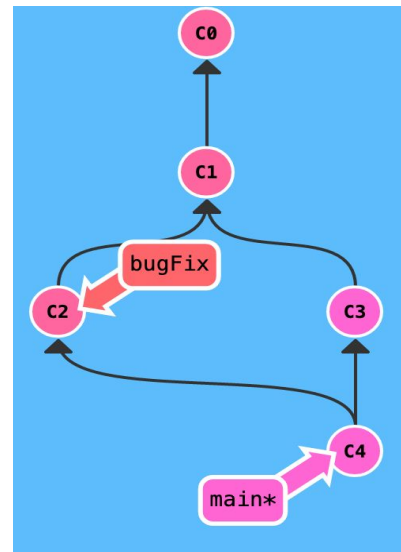
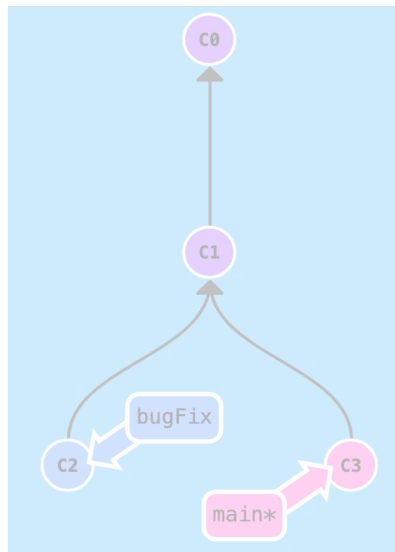
Merge
act of incorporating new changes (commits) from one branch to another.



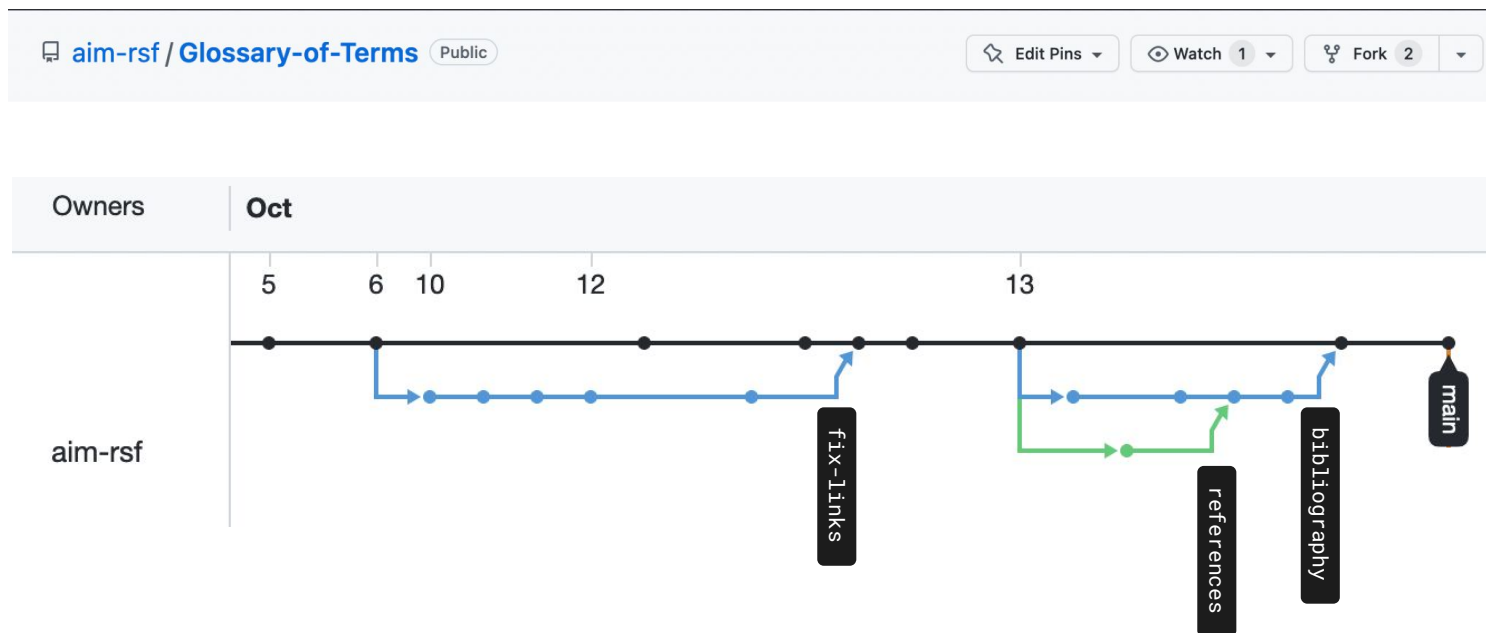
Pull Request & Merge

Pull request
request to add your changes from a branch back into main.

Merge
act of incorporating new changes (commits) from one branch to another.



Pull Request & Merge



Branches, PRs, and Merging

If you own a repo or are an official collaborator:

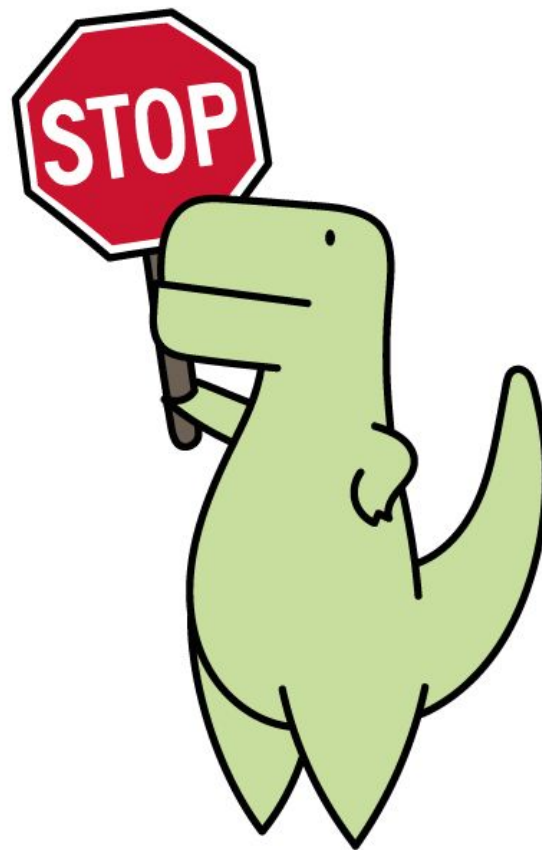
- a. you will **Create a new branch**
- b. work on the new branch
- c. **create a Pull Request** for the changes you've made
- d. a collaborator will decide to merge them in.

Forks, PRs, and Merging

If you **do not** own a repo and aren't an official collaborator:

- a. you will **Create a fork**
- b. work on your own fork
- c. **create a Pull Request** for the changes you've made
- d. the repo maintainer will decide to merge them in.

Questions?



LoofandTimmy.com

GitHub Exercise 2: Edit a file and make a Pull Request.

I'll talk through it, and then we'll do it together.

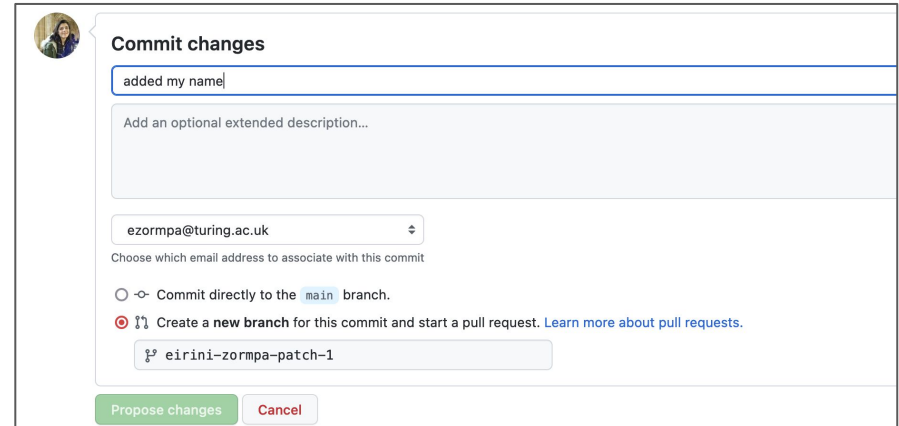
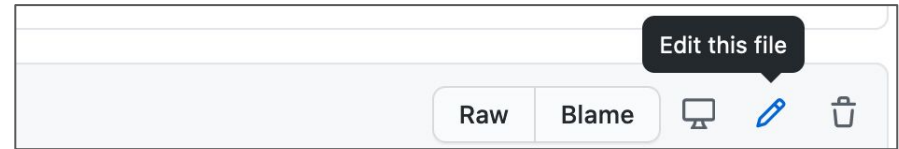
1. Go to the file labeled **introductions**
2. Edit the file and write about your **favourite pizza topping**
3. **Commit** the change and submit a **Pull Request**.



Make a commit -

Step-by-step:

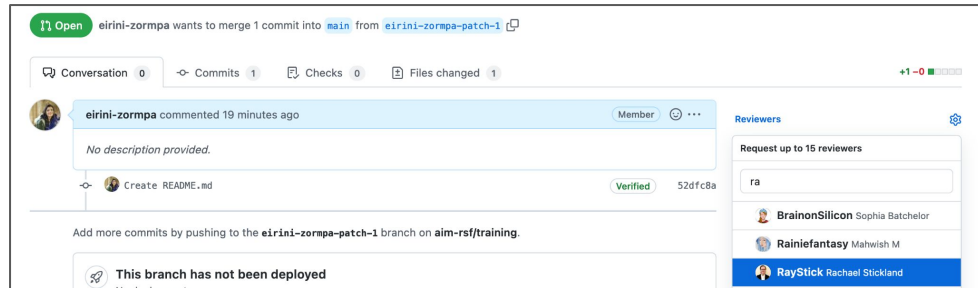
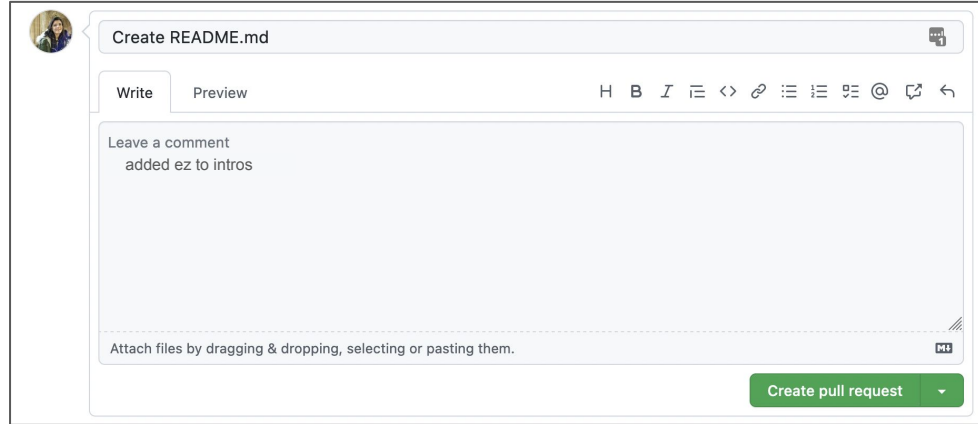
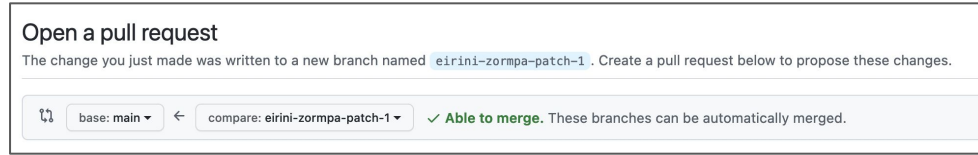
1. Navigate to the introductions file
2. Click on the pencil icon to edit
3. Write on the line **number assigned by the instructor from the Issue we worked on earlier**
4. Scroll down to the 'Commit changes' section
5. Write a good commit message!
6. Create a new branch for the commit
7. Click on 'Propose changes'
8. **Don't close this page**



Create a Pull request

Step-by-step:

1. Go back to the pull request page
2. You should see a green check, saying 'Able to merge'
3. Add any additional information in the 'Leave a comment' section, if you like
4. Click on 'Create a pull request'
5. Assign me (@cassgvp) as reviewer



CONGRATS!!

You made your first Pull Request!






Let's Git Good:



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- Writing in Markdown
- **Exercise 2:** Editing a file and making a Pull Request.
- **How to use the template repo for your challenge**

GitHub Skills Summary

- Repository to store your project 
- Issues to track tasks 
- Writing in Markdown to add links and content
- Branches and Pull requests to collaborate 

Acknowledgements

- The Brilliant Club, support staff, and Juliette Sexton.
- Kirstie Whitaker, Malvika Sharan, *The Turing Way* community, friends & collaborators
- Sophia Batchelor, Malvika Sharan, Cass Gould van Praag, Emma Karoune, Eirini Zormpa, Gabin Kayumbi.
- GitHub workshop based on Friendly GitHub Intro by Kirstie Whitaker, GitHub Collaborating Document by Malvika Sharan & GitHub for Collaboration by Sophia Batchelor.
- Original artwork by Scriberia: <https://doi.org/10.5281/zenodo.3332807>

THANK YOU!!

