

GitHub Workshop w/ **WiCS**



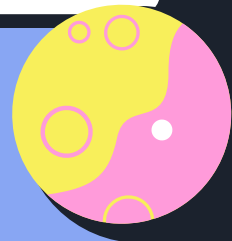
11/13/24



MyWPI

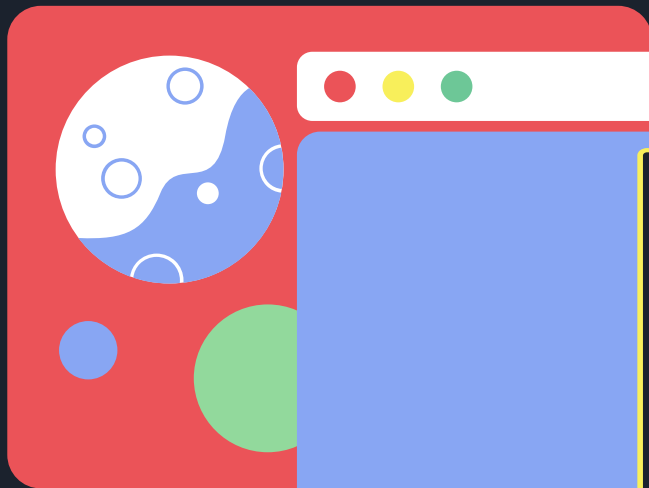


Attendance





**First Make GitHub
Accounts!**



Please fill out this form with your
Github username or email



Upcoming events...

Thanksgiving!

11/25 w/ friends
or family

WiCS Study Hours

12/11 @ 5pm in
IS205



WiCS Exec Elections

11/20 @ 5pm in
IS205

WiCS Holiday Bash

12/04 @ 5pm in
IS205

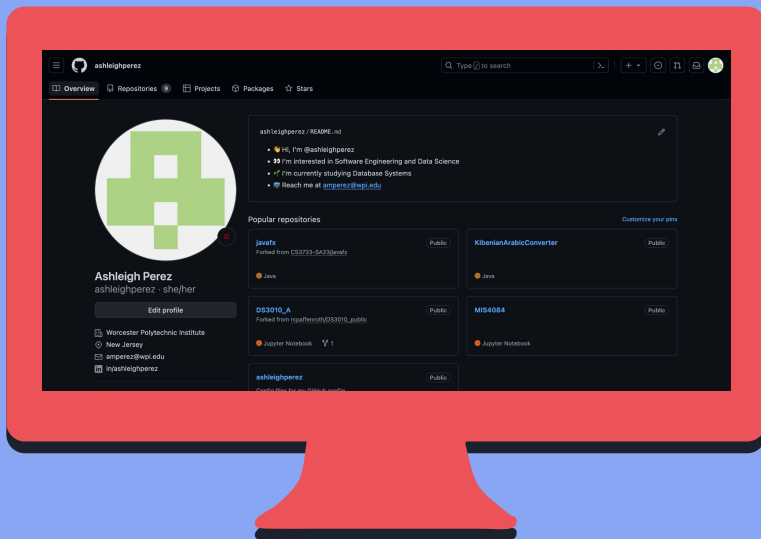
Winter Break!!!

Go home and
rest!



Let's **Git** Into it!

[ ]



GitHub

a cloud-based Git repository
hosting service



What is Git?

Workflow

Split up big projects
(branching)

Collaboration

Code with teams or
partners

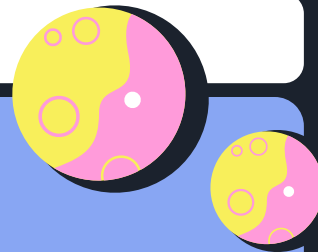
Version Control!

Tracking

Keep a log of changes
(commits)

Accessibility

Publish or share your
projects!



Setup!



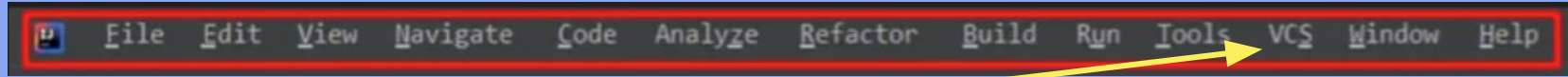
Command Prompt



Through your IDE



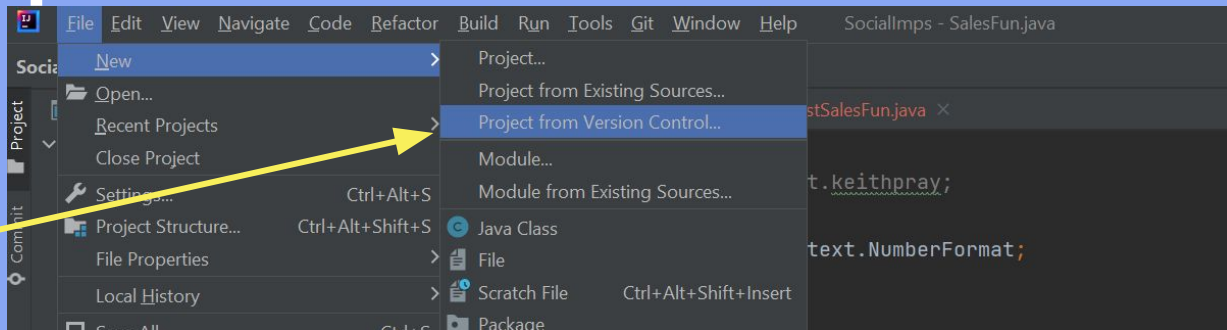
Setup in IntelliJ



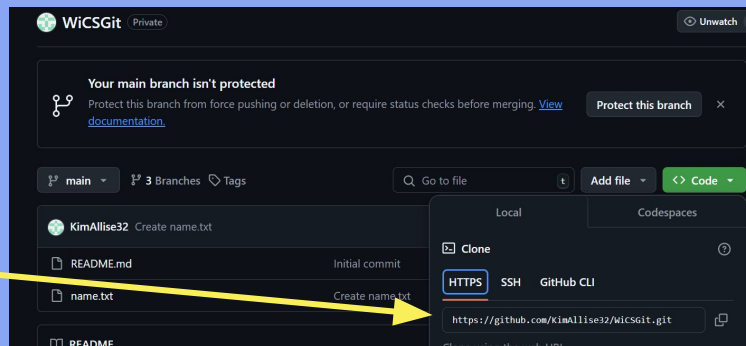
Click this and then
click git

Setup in IntelliJ

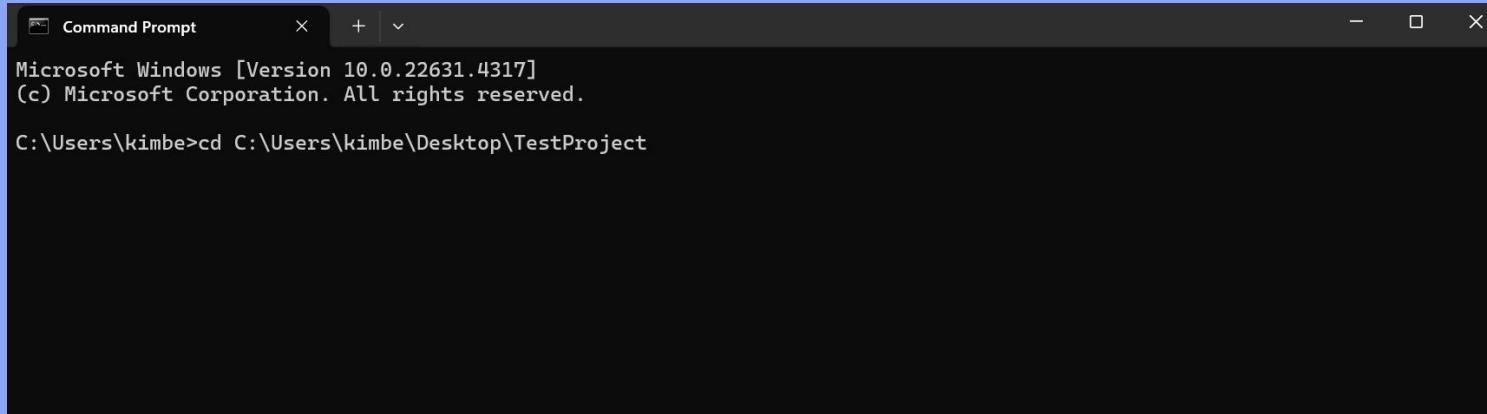
IDE



GitHub



Setup in Command Line



```
Command Prompt
Microsoft Windows [Version 10.0.22631.4317]
(c) Microsoft Corporation. All rights reserved.

C:\Users\kimbe>cd C:\Users\kimbe\Desktop\TestProject
```



Setup in Command Line

First, you'll need to tell git about yourself. Get your username and token together from your [settings page](#).

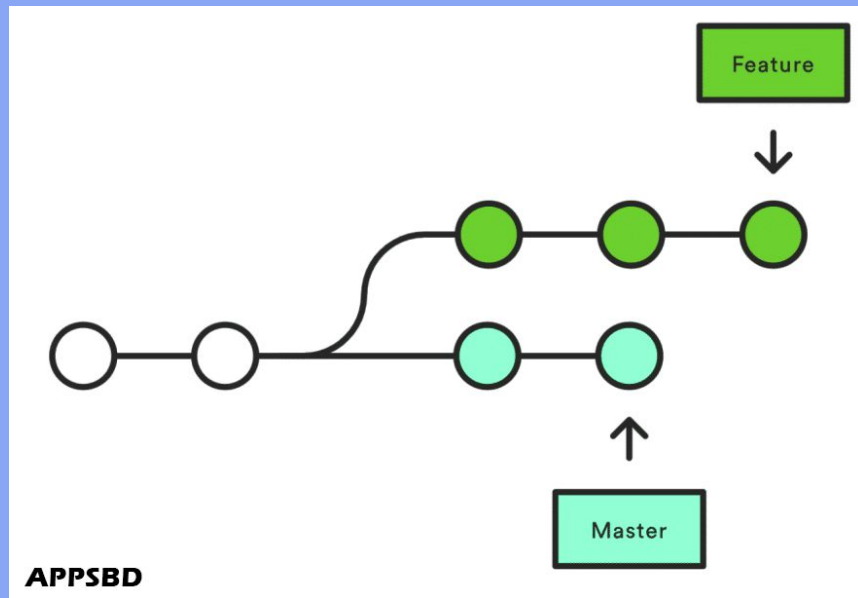
Then run:

```
git config --global github.user YOUR_USERNAME  
git config --global github.token YOUR_TOKEN
```

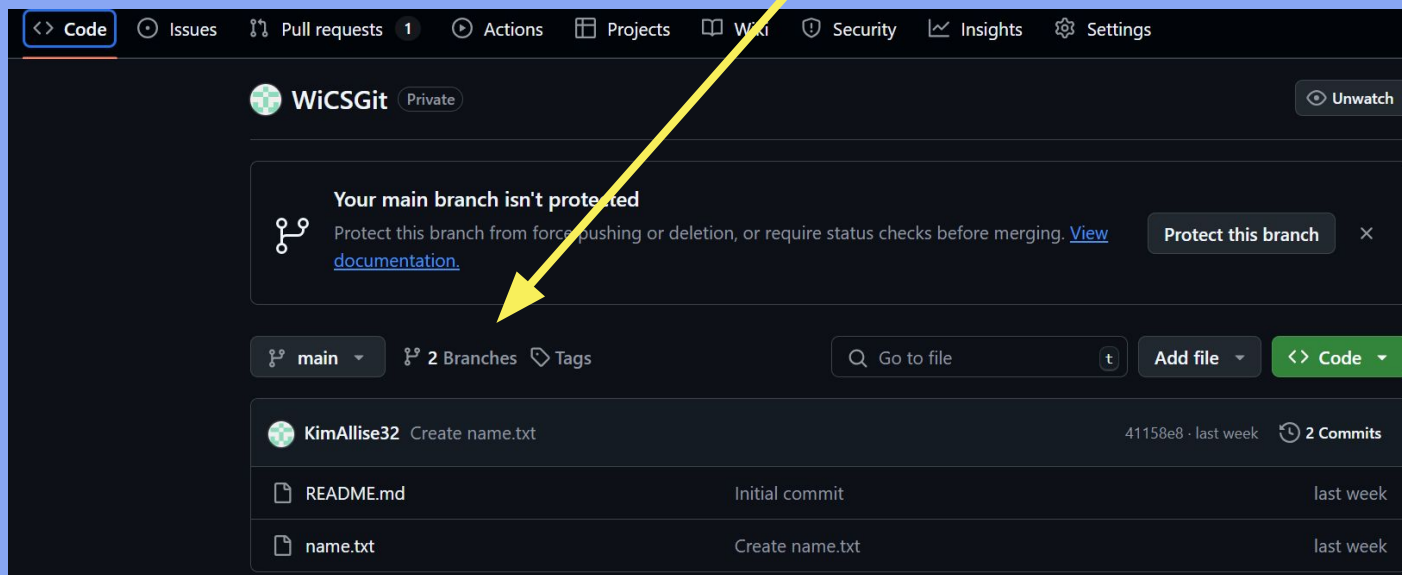
You will need to [generate a new key](#) if you don't have a back-up of your key.

Then you should be able to run:

```
git clone git@github.com:YOUR_USERNAME/YOUR_PROJECT.git
```



What is Branching



The screenshot shows the GitHub interface for a repository named 'WiCSGit'. The top navigation bar includes links for Code, Issues, Pull requests (1), Actions, Projects, Wiki, Security, Insights, and Settings. The repository is marked as 'Private' and has an 'Unwatch' button. A prominent warning box states 'Your main branch isn't protected' and provides a link to 'View documentation'. Below this, the 'main' branch is selected, showing '2 Branches' and 'Tags'. A search bar and 'Add file' button are also visible. The commit history shows two commits: 'Initial commit' for 'README.md' and 'Create name.txt' for 'name.txt', both from 'last week'.

Your main branch isn't protected

Protect this branch from force pushing or deletion, or require status checks before merging. [View documentation.](#) [Protect this branch](#) ×

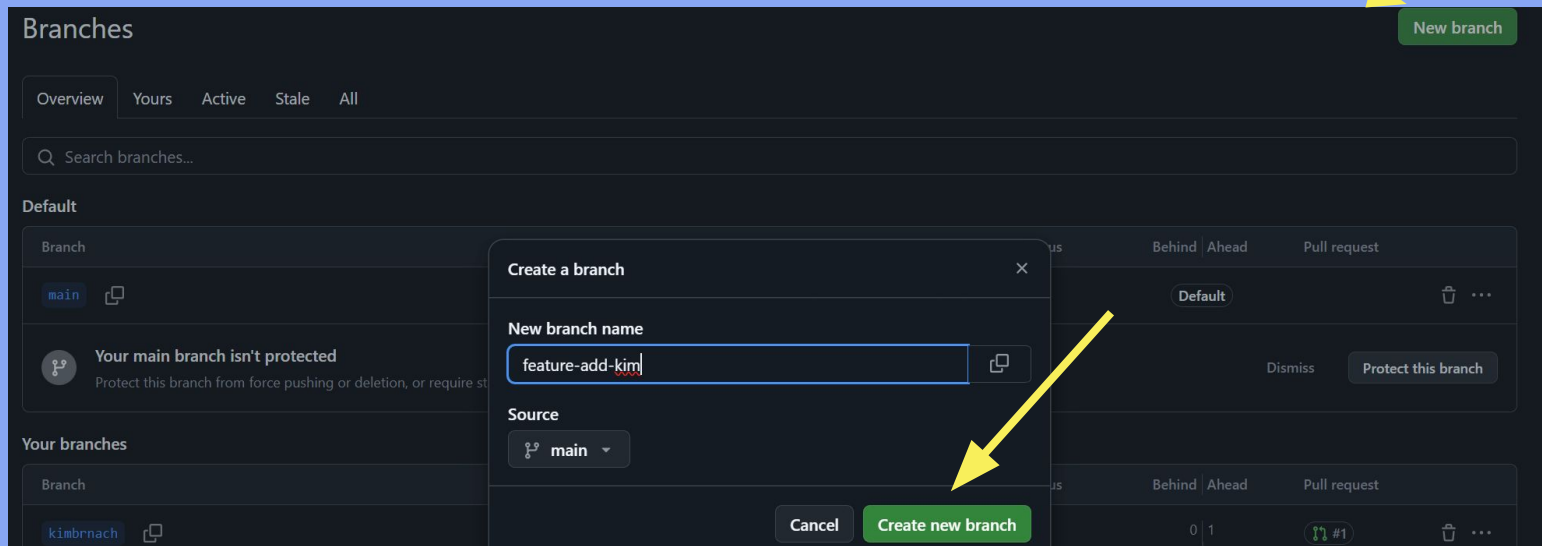
main 2 Branches Tags

Go to file Add file <> Code

Commit	Author	Message	Files	Time
41158e8	KimAllise32	Create name.txt	name.txt	last week
		Initial commit	README.md	last week

What is Branching

Descriptive names for branches!



The screenshot shows the GitHub 'Branches' page. At the top right, a yellow arrow points to a green 'New branch' button. In the center, a 'Create a branch' modal is open. Inside the modal, the 'New branch name' field contains 'feature-add-kim', with a yellow arrow pointing to it. Below this, the 'Source' dropdown is set to 'main'. At the bottom of the modal, there are 'Cancel' and 'Create new branch' buttons. The background interface includes tabs for 'Overview', 'Yours', 'Active', 'Stale', and 'All', a search bar, and a list of branches with 'main' as the default. A warning message states 'Your main branch isn't protected'.

Branches

Overview Yours Active Stale All

Search branches...

Default

Branch

main

Your main branch isn't protected
Protect this branch from force pushing or deletion, or require status checks.

Your branches

Branch

kimbranch

Create a branch

New branch name

feature-add-kim

Source

main

Cancel Create new branch

Behind Ahead Pull request

Default

Dismiss Protect this branch

Behind Ahead Pull request

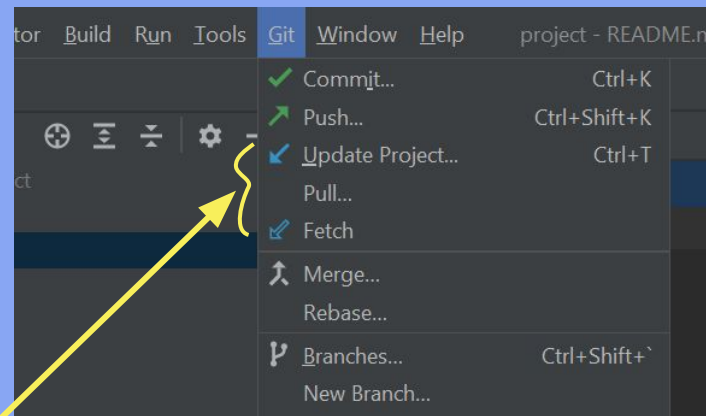
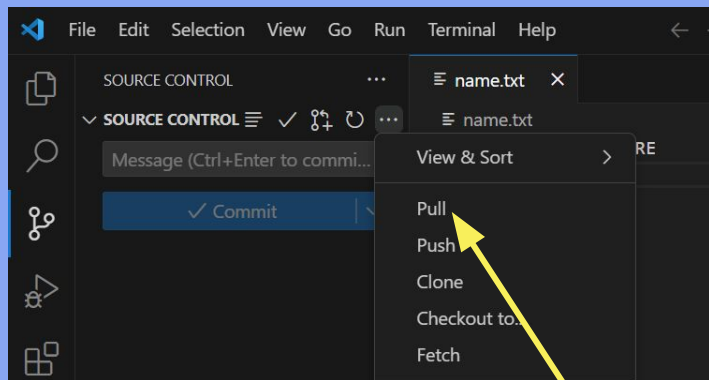
0 1 #1

What is Pulling

GitHub



What is Pulling



Different IDEs will have slightly different locations for git commands

Navigate Code Refactor Build Run Tools Git Window Help project - README.md

d

After pulling, make
sure to switch to
your branch!!!



es 5 files

✓ Commit... Ctrl+K

↗ Push... Ctrl+Shift+K

↩ Update Project... Ctrl+T

Pull...

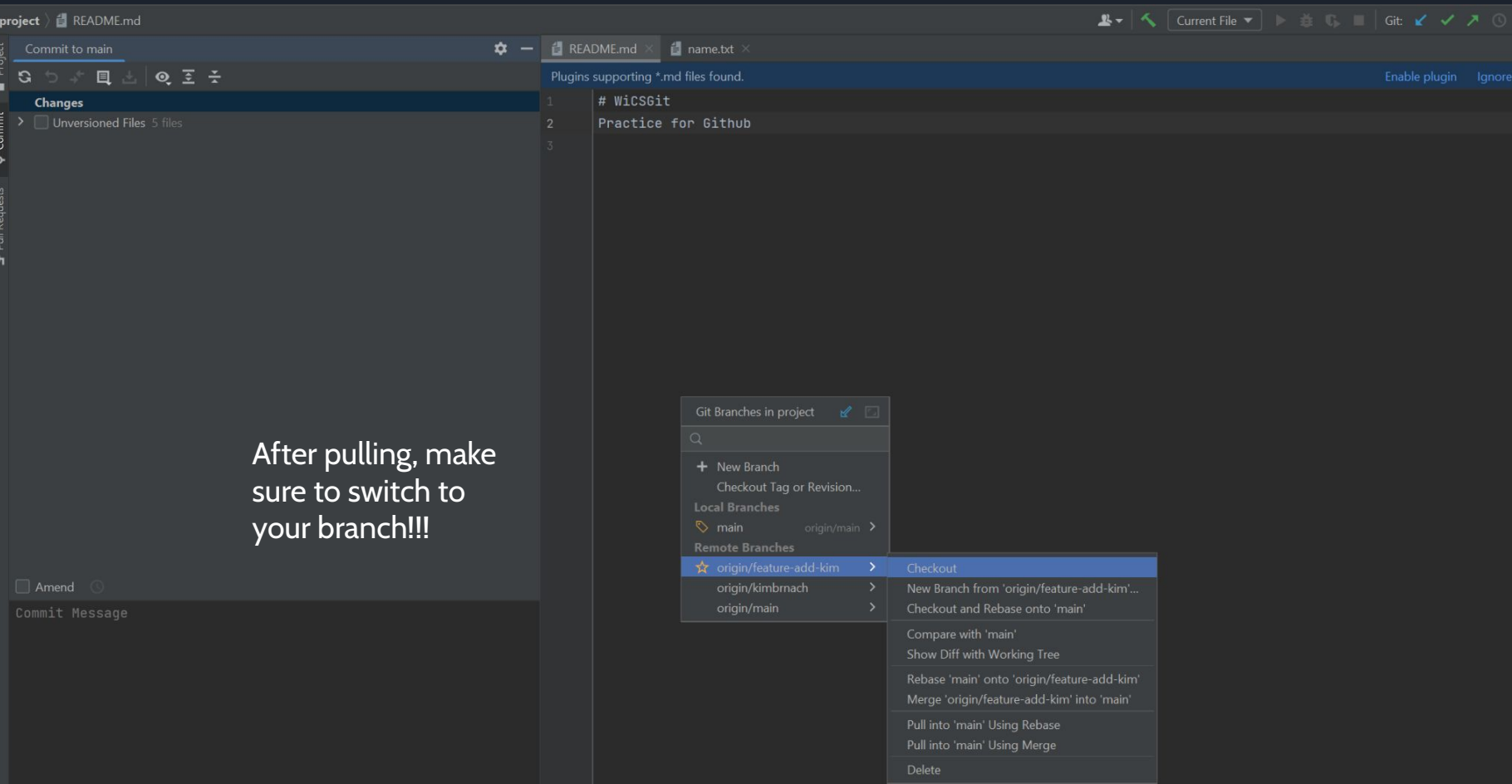
↩ Fetch

↕ Merge...

Rebase...

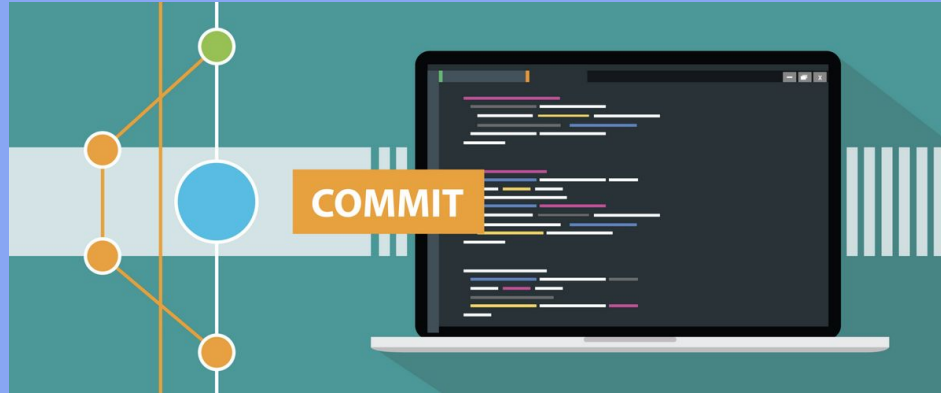
🔗 Branches... Ctrl+Shift+`

New Branch...

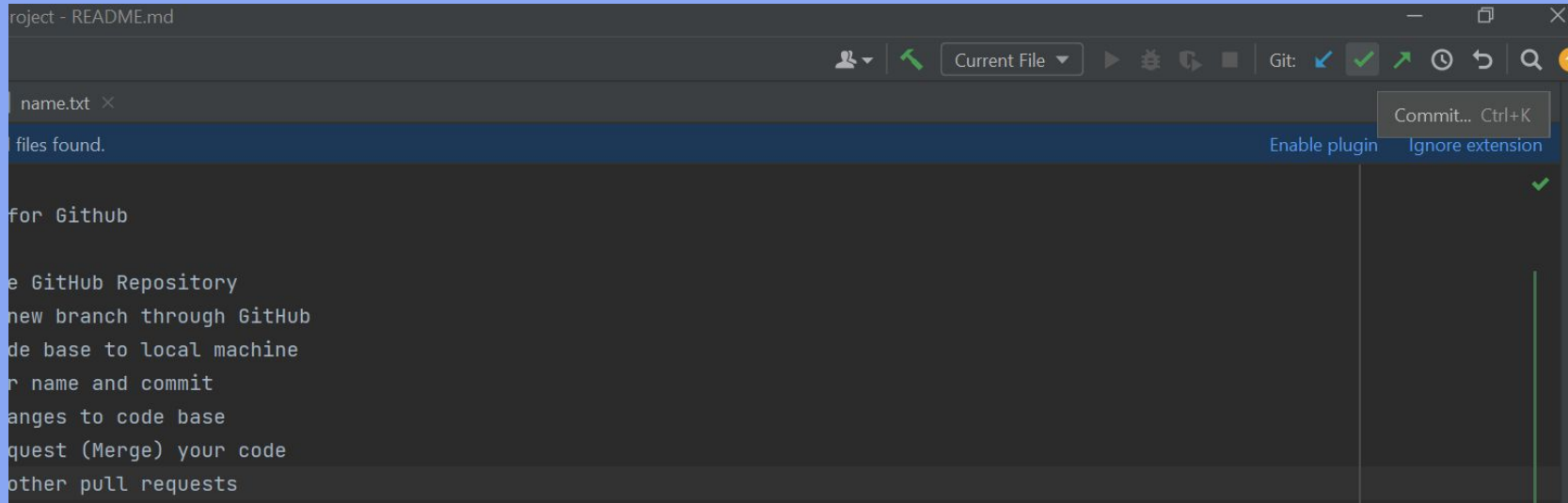


What is a Commit

Commit after making
changes to you branch!



What is a Commit



project - README.md

name.txt ×

files found.

Commit... Ctrl+K

Enable plugin Ignore extension

for Github

the GitHub Repository

new branch through GitHub

de base to local machine

r name and commit

anges to code base

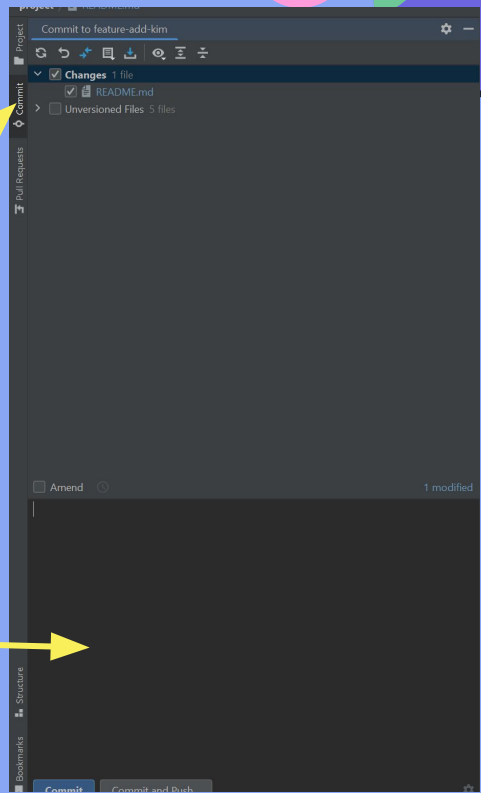
quest (Merge) your code

other pull requests

What is a Commit

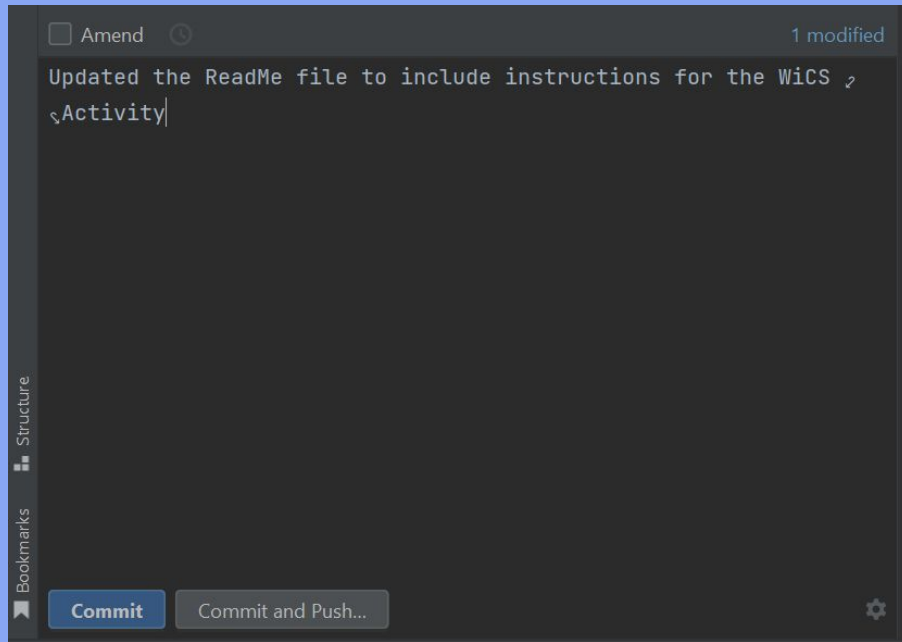
The files you changed. Make sure to check that the correct files were changed!!!

The commit message box. Make sure to use descriptive language for every commit.

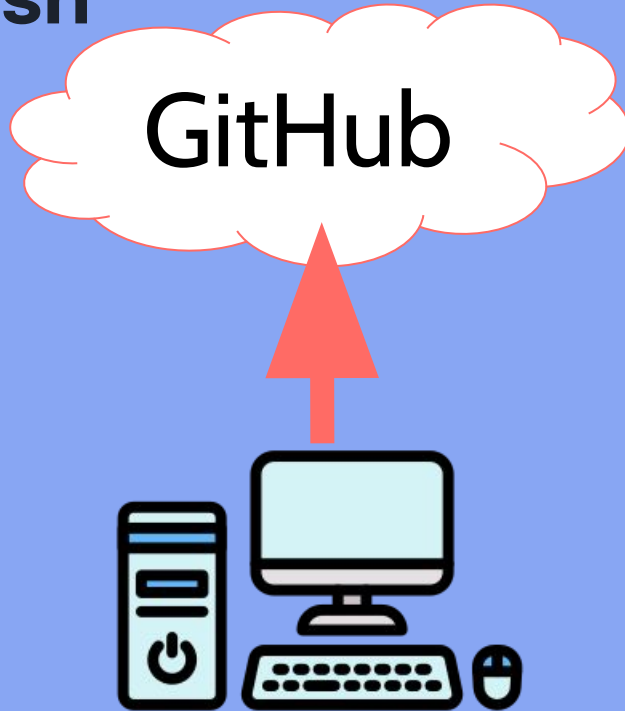




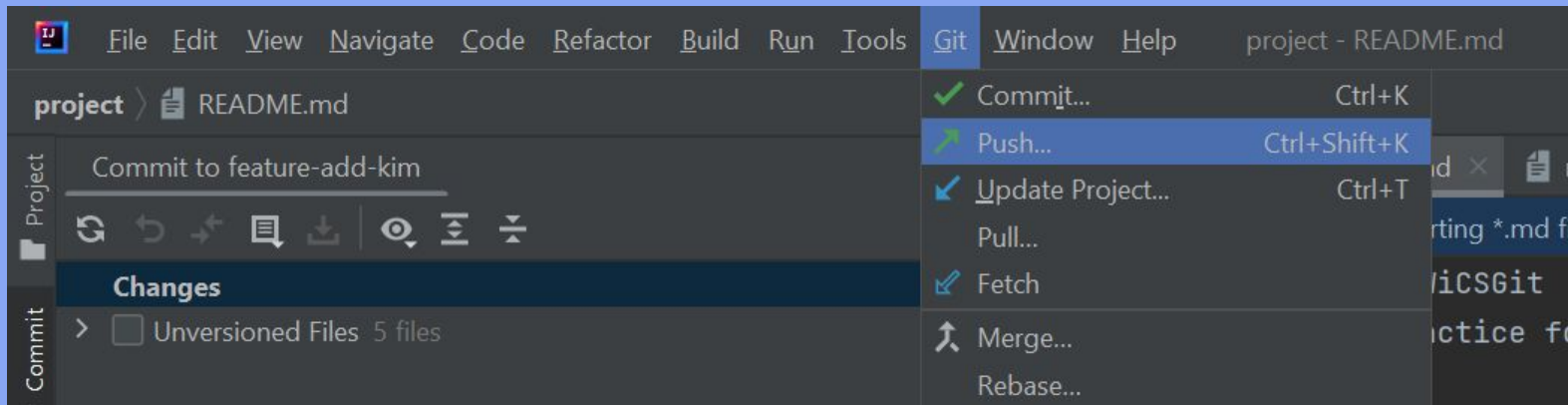
What is a Commit



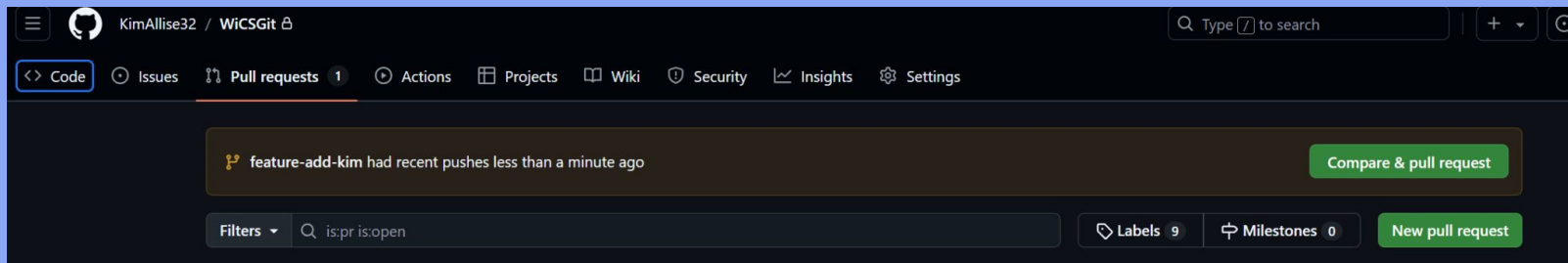
What is a Push



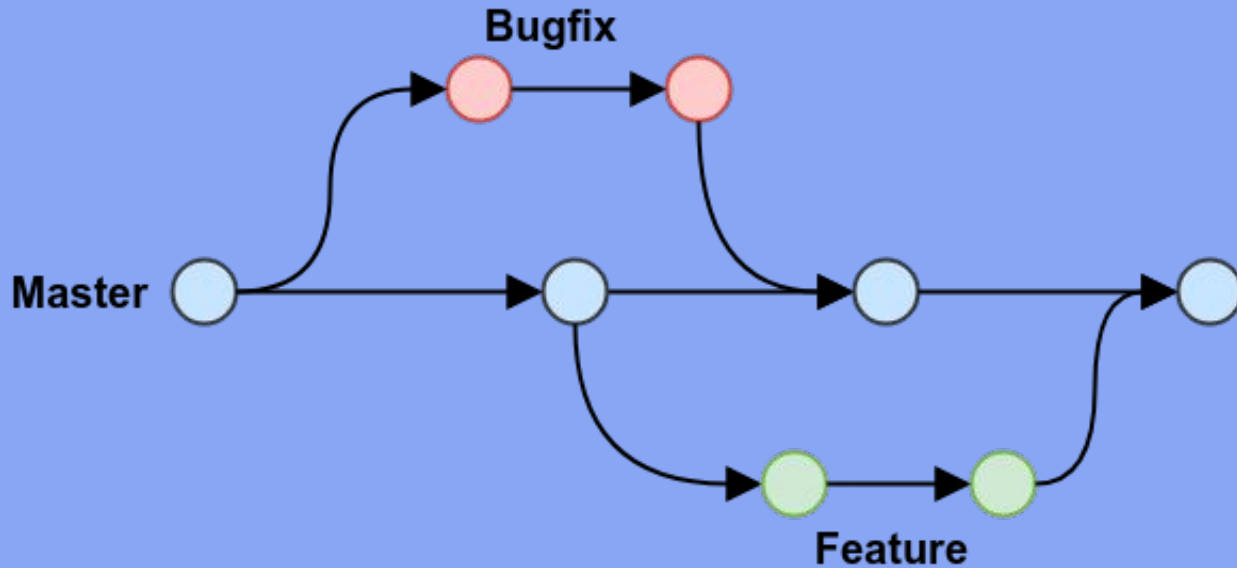
What is a Push



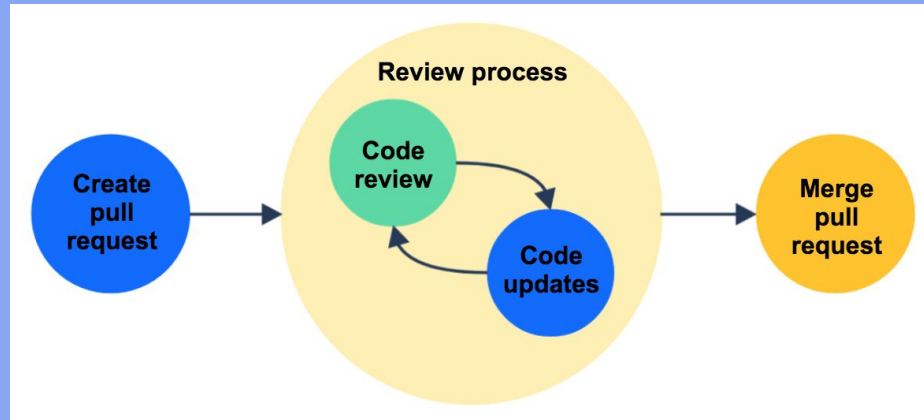
What is a Push



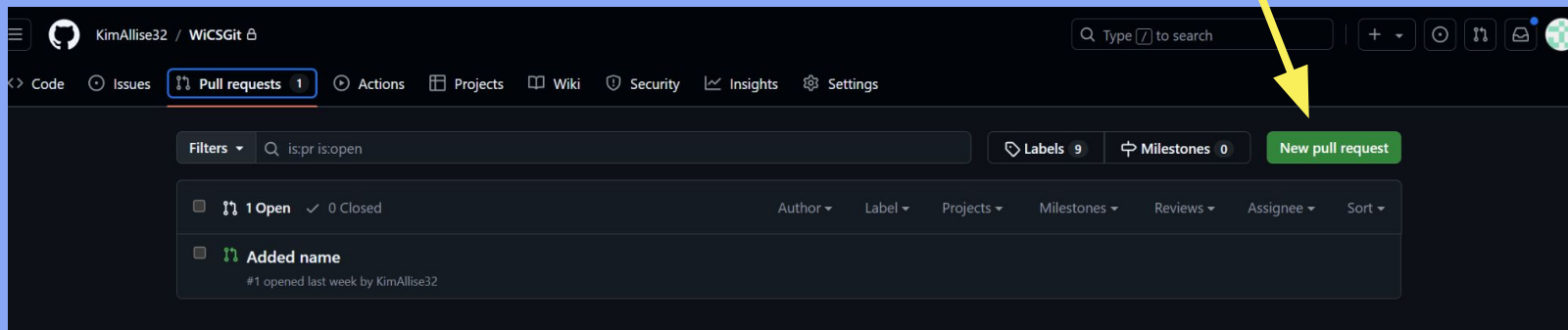
What is Merging



What are Pull Requests



What are Pull Requests



What are Pull Requests

Make sure you are merging changes into the correct branch

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#). [Learn more about diff comparisons here](#).



base: main



compare: feature-add-kim



Able to merge. These branches can be automatically merged.



Add a title

Updated the ReadMe file to include instructions for the WICS Activity

Add a description

Write

Preview

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Add your description here...

🔗 Markdown is supported

📎 Paste, drop, or click to add files

Create pull request



Reviewers

No reviews

Assignees

No one—assign yourself

Labels

None yet

Projects

None yet

Milestone

No milestone

Development

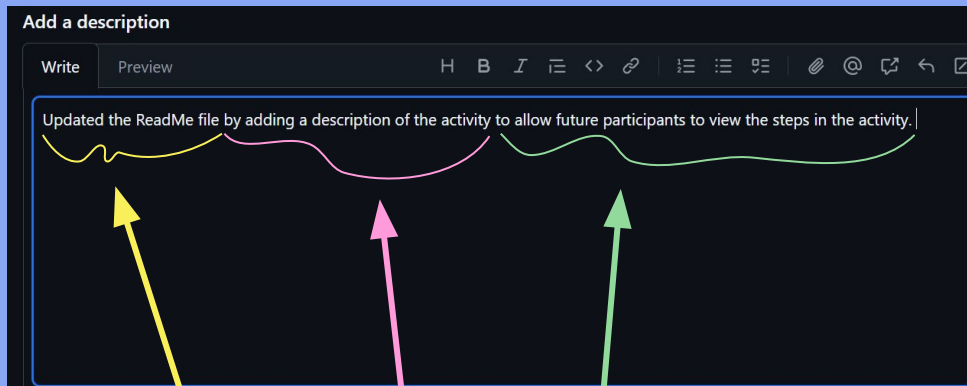
Use [Closing keywords](#) to automatically close issues

Helpful resources

Add a good description here too!

Good PR Descriptions

- What?
- Why?
- How?
- Testing?
- Screenshots (optional)
- Additional Info (optional)



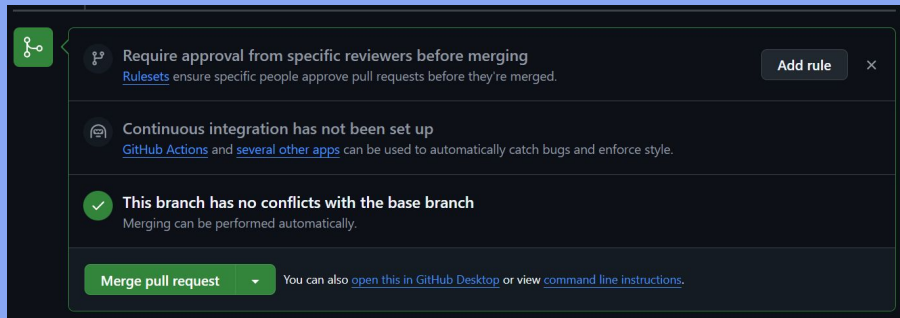
What

How

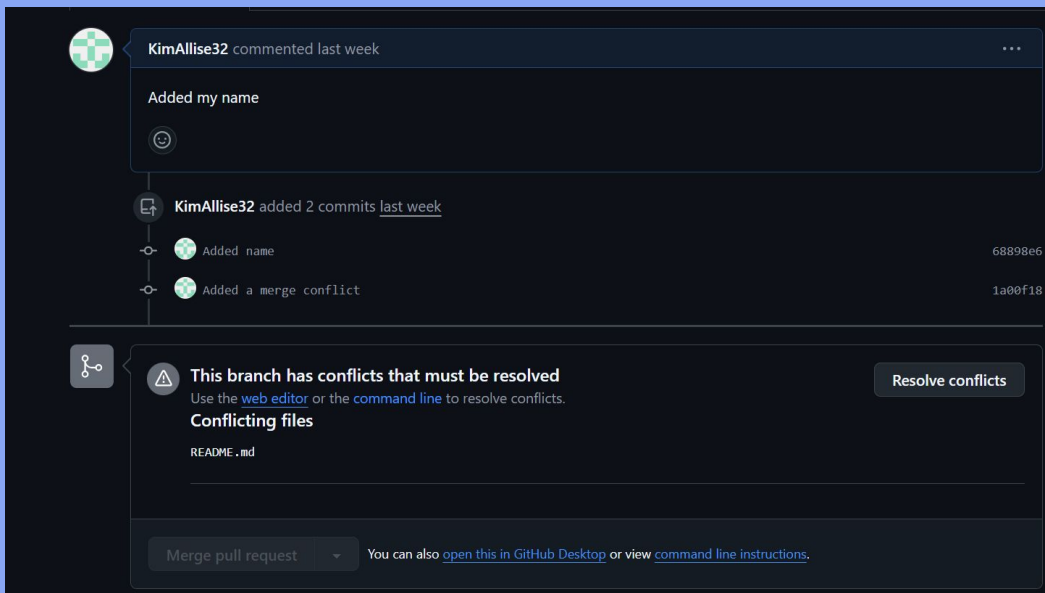
Why

Reviewing PRs

I would recommend on big projects downloading the branch and making sure it works before allowing the PR through



Watch out for Merge Conflicts



Watch out for Merge Conflicts


My branch
version

Main Version

README.md

```
1  # WiCSGit
2  Practice for Github
3
4  <<<<<< kimbrnach
5  MERGE CONFLICT
6  =====
7  → Find the Github Repository
8  → Make a new branch through Github
9  → Pull code base to local machine
10 → Add your name and commit
11 → Push changes to code base
12 → Pull Request (Merge) your code
13 → Review other pull requests
14 >>>>>> main
15
```

Watch out for Merge Conflicts



```
README.md 1 conflict  Prev ^  Next v  ⚙️  Mark as resolved

1  # WicSGit
2  Practice for Github
3
4  → Find the Github Repository
5  → Make a new branch through Github
6  → Pull code base to local machine
7  → Add your name and commit
8  → Push changes to code base
9  → Pull Request (Merge) your code
10 → Review other pull requests
11
```





Activity!

- Find the GitHub Repository
- Make a new **branch** through GitHub
- **Pull** code base to local machine
- Checkout your branch
- Add your name and **commit**
- **Push** changes to code base
- **Pull Request** (Merge) your code
- Review other pull requests

Watch out for merge conflicts!!!



Resources

- [WiCS Git Cheat Sheet](#)
- <https://ohshitgit.com/>
- [Atlassian Git Cheat Sheet](#)
- <https://learngitbranching.js.org/>
- <https://blog.codeanalogies.com/2019/05/26/prs-explained/>
- <https://git-school.github.io/visualizing-git/>

