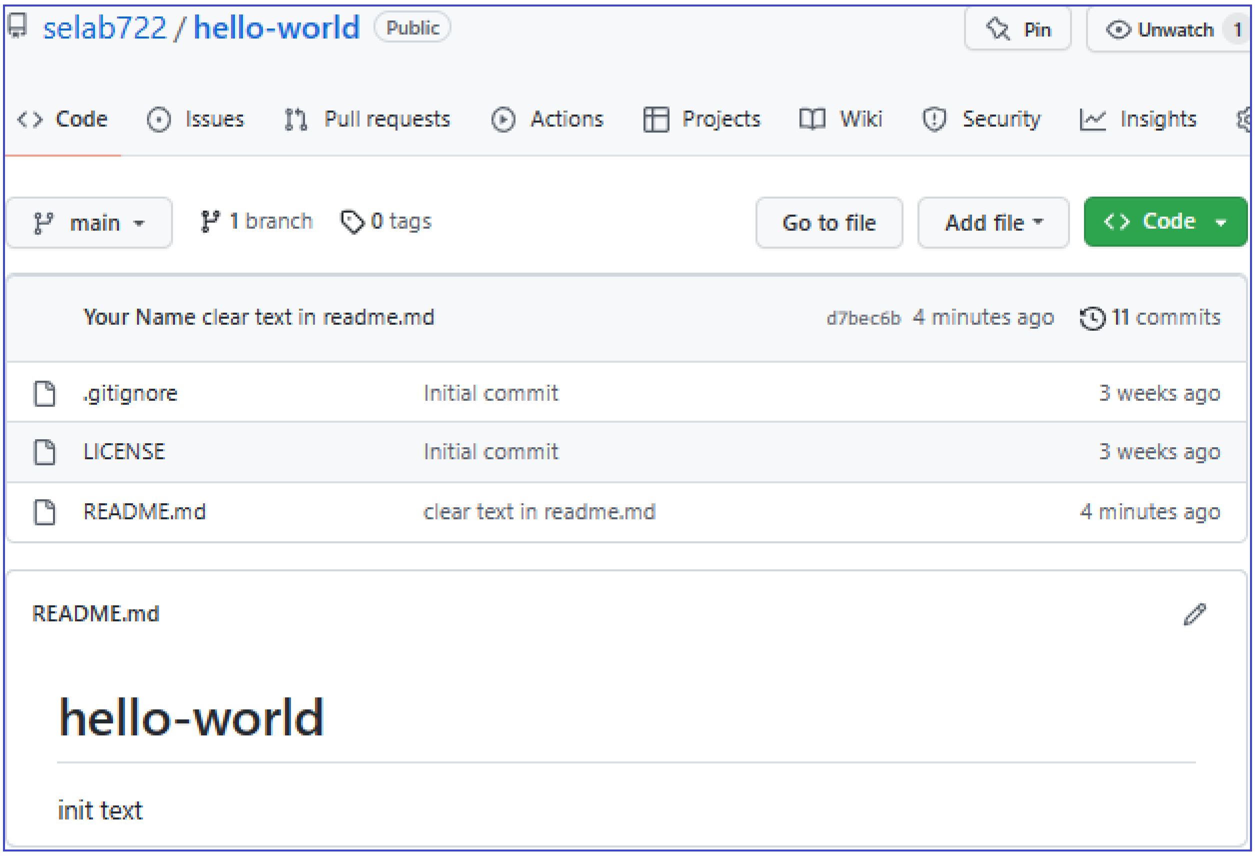
Github code review features

Pull requests

Pull requests are fundamental to how teams review and improve code on GitHub. Evolve projects, propose new features, and discuss implementation details before changing your source code (https://github.com/features/code-review).

Suppose several people are working on this project:



Your Name clear text in readme.md d7bec6b 4 minutes ago 11 commits

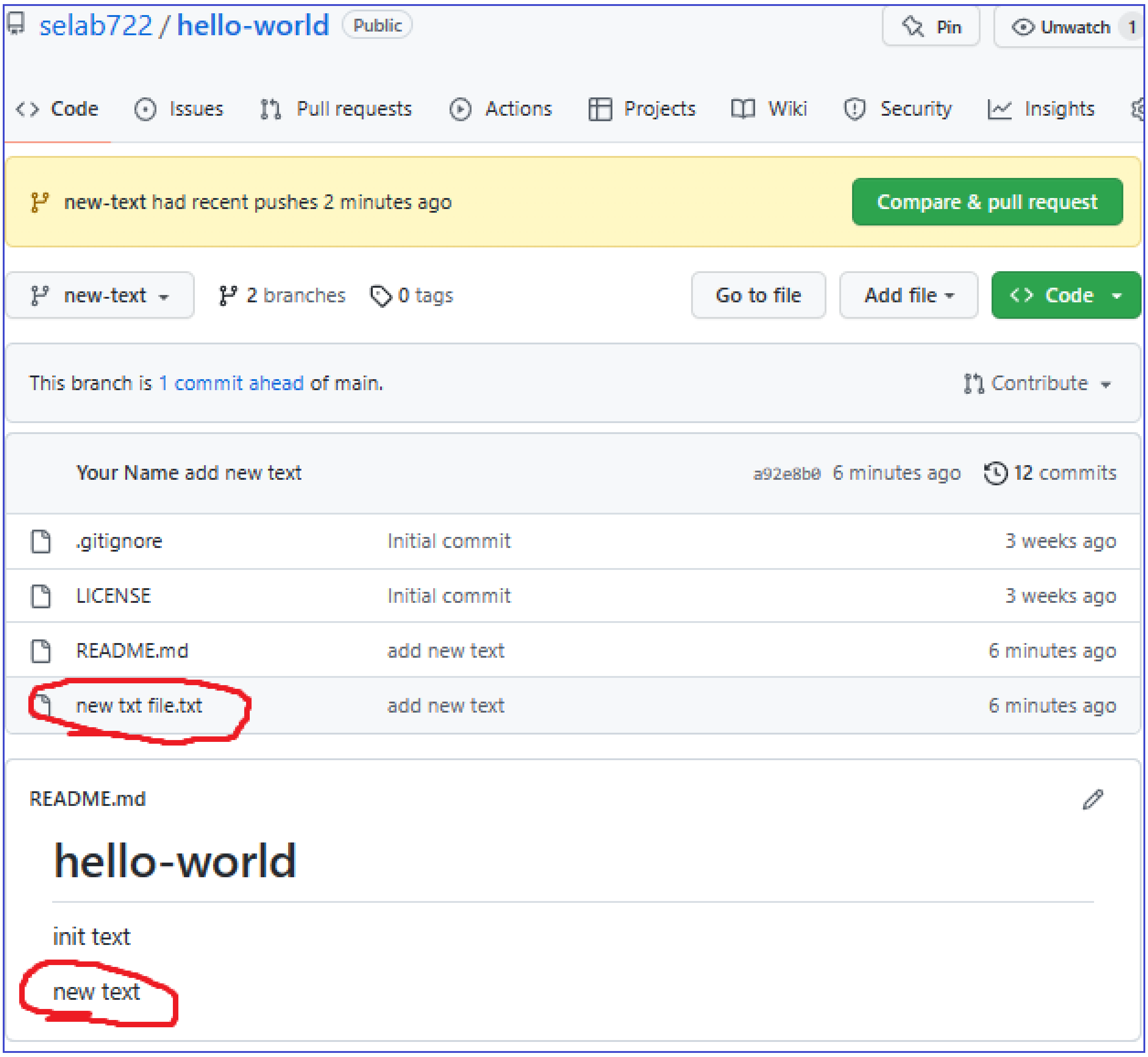
.gitignore	Initial commit	3 weeks ago
LICENSE	Initial commit	3 weeks ago
README.md	clear text in readme.md	4 minutes ago

README.md

hello-world

init text

Now you wants to make a change to the repo, you can make the change in a new branch (in this example, new-text):



new-text had recent pushes 2 minutes ago

This branch is 1 commit ahead of main.

Your Name add new text a92e8b0 6 minutes ago 12 commits

.gitignore	Initial commit	3 weeks ago
LICENSE	Initial commit	3 weeks ago
README.md	add new text	6 minutes ago
new txt file.txt	add new text	6 minutes ago

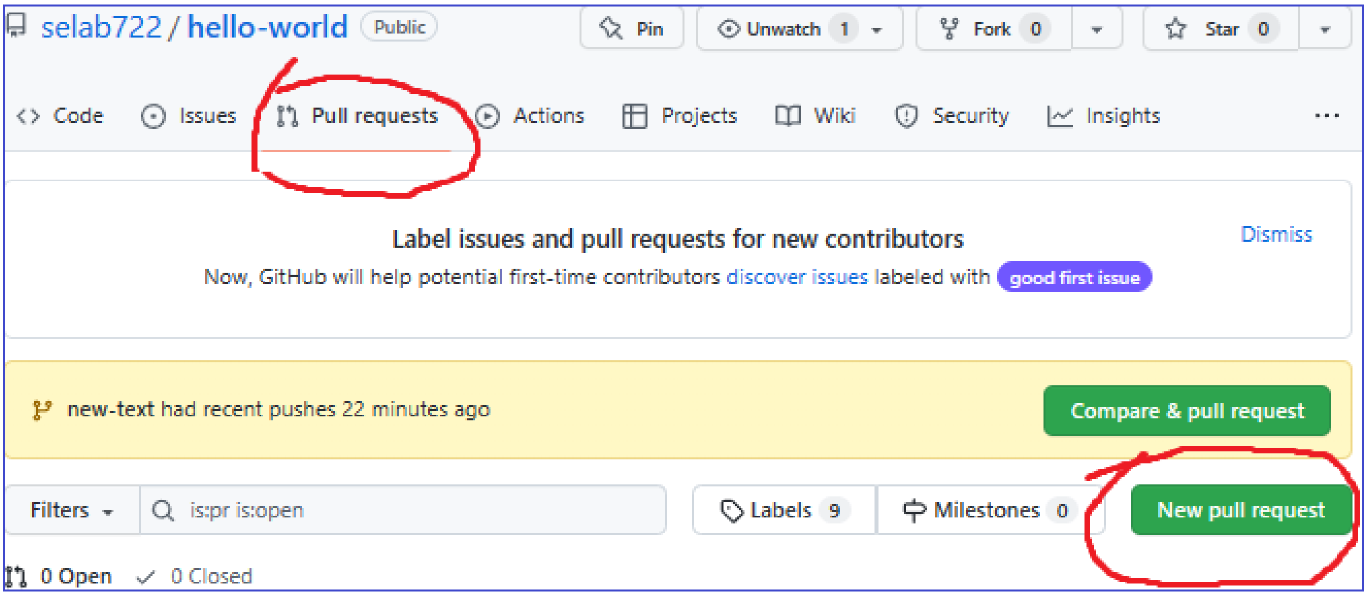
README.md

hello-world

init text

new text

You can just merge commit. But sometimes you can create a pull request:

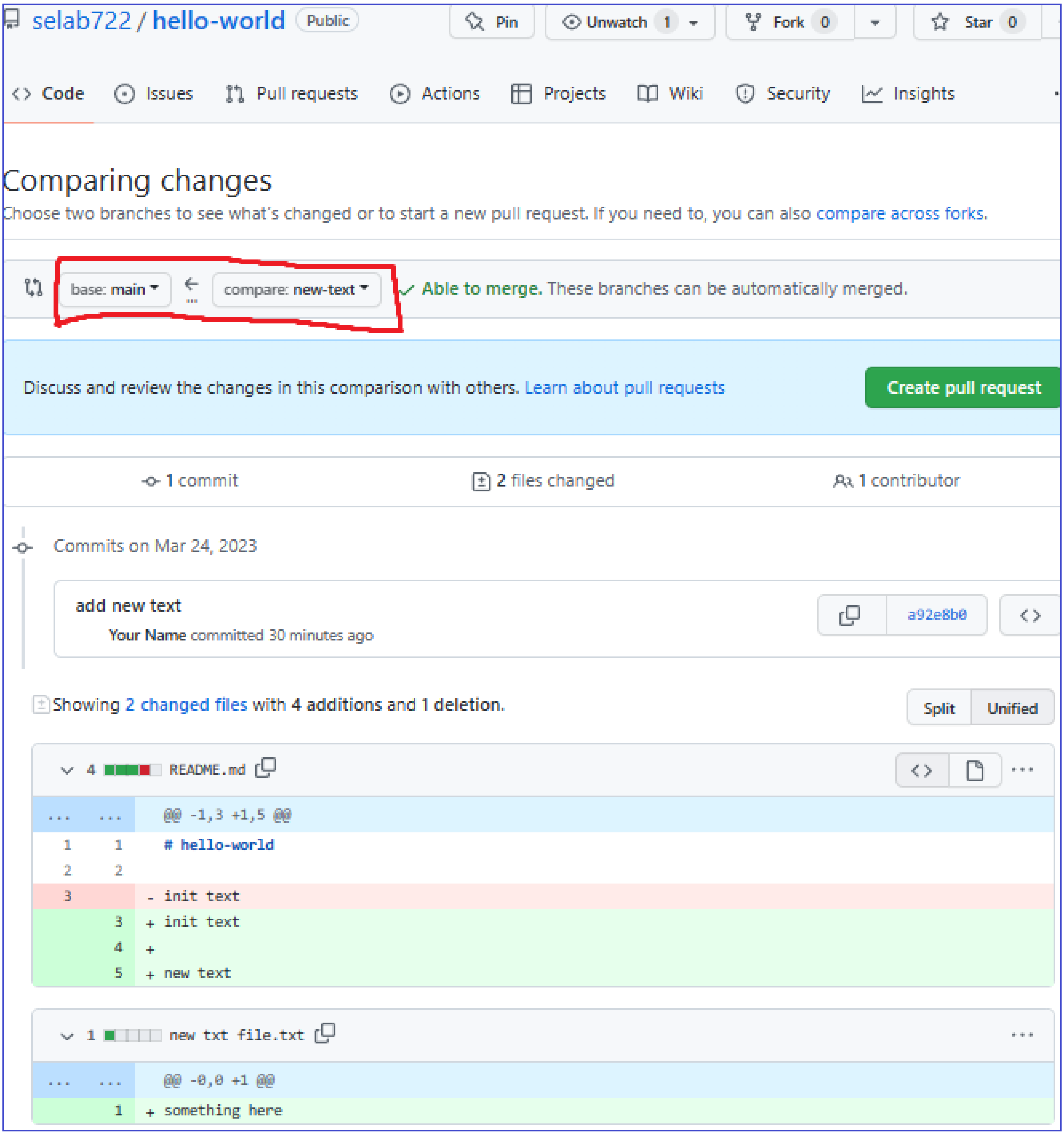


Label issues and pull requests for new contributors

Now, GitHub will help potential first-time contributors discover issues labeled with good first issue

new-text had recent pushes 22 minutes ago

You can select two branches to merge in your pull request. In this example, it is from "new-text" to "main". It means "a request to pull changes from the 'new-text' branch into 'main' branch".



Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also compare across forks.

base: main ← compare: new-text ✓ Able to merge. These branches can be automatically merged.

Discuss and review the changes in this comparison with others. Learn about pull requests

1 commit 2 files changed 1 contributor

Commits on Mar 24, 2023

add new text
Your Name committed 30 minutes ago a92e8b0

Showing 2 changed files with 4 additions and 1 deletion.

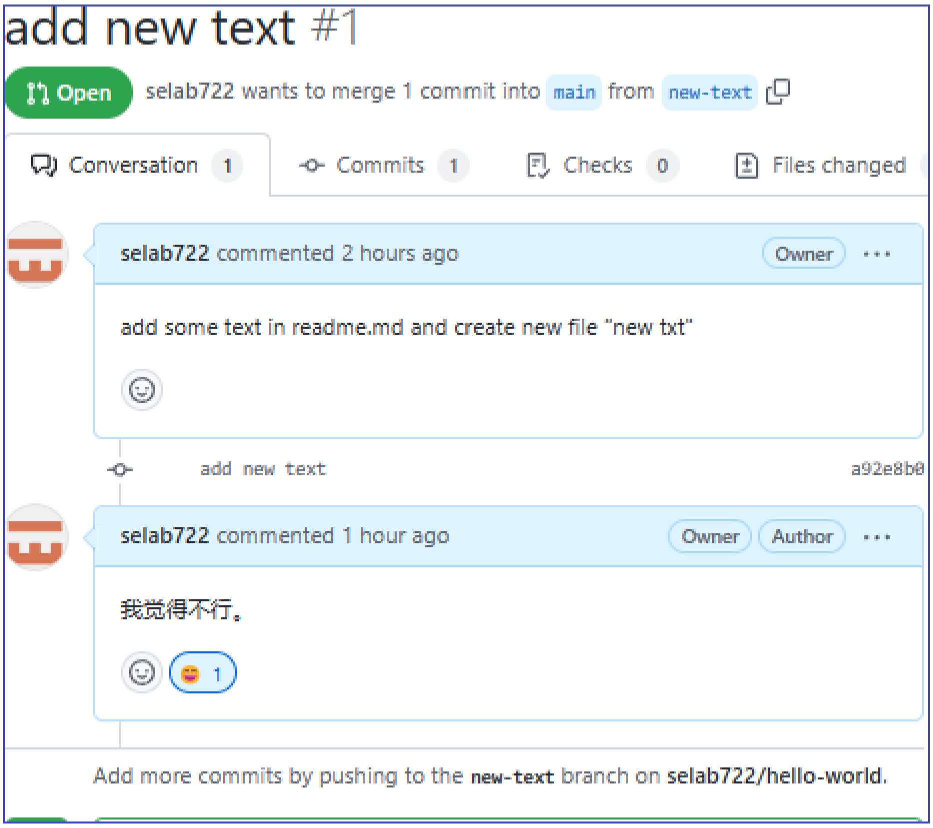
4 README.md

```
...  ...  @@ -1,3 +1,5 @@
1    1    # hello-world
2    2
3         - init text
     3    + init text
     4    +
     5    + new text
```

1 new txt file.txt

```
...  ...  @@ -0,0 +1 @@
     1    + something here
```

Your teammates can discuss about this pull request:



add new text #1

selab722 wants to merge 1 commit into `main` from `new-text`

selab722 commented 2 hours ago

add some text in readme.md and create new file "new txt"

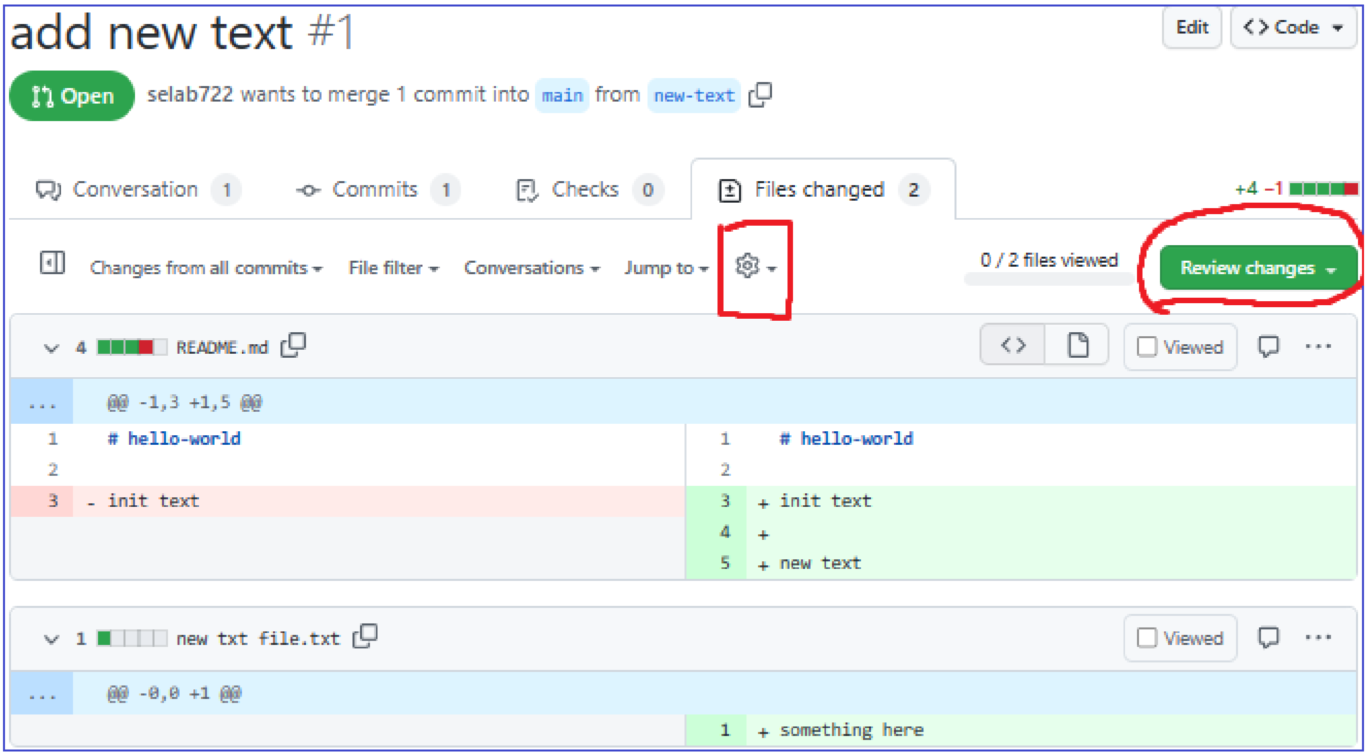
add new text a92e8b0

selab722 commented 1 hour ago

我觉得不行。

Add more commits by pushing to the **new-text** branch on **selab722/hello-world**.

They can also compare the changes you made on each file (click the gear wheel to select between two different view) and write reviews about these changes:



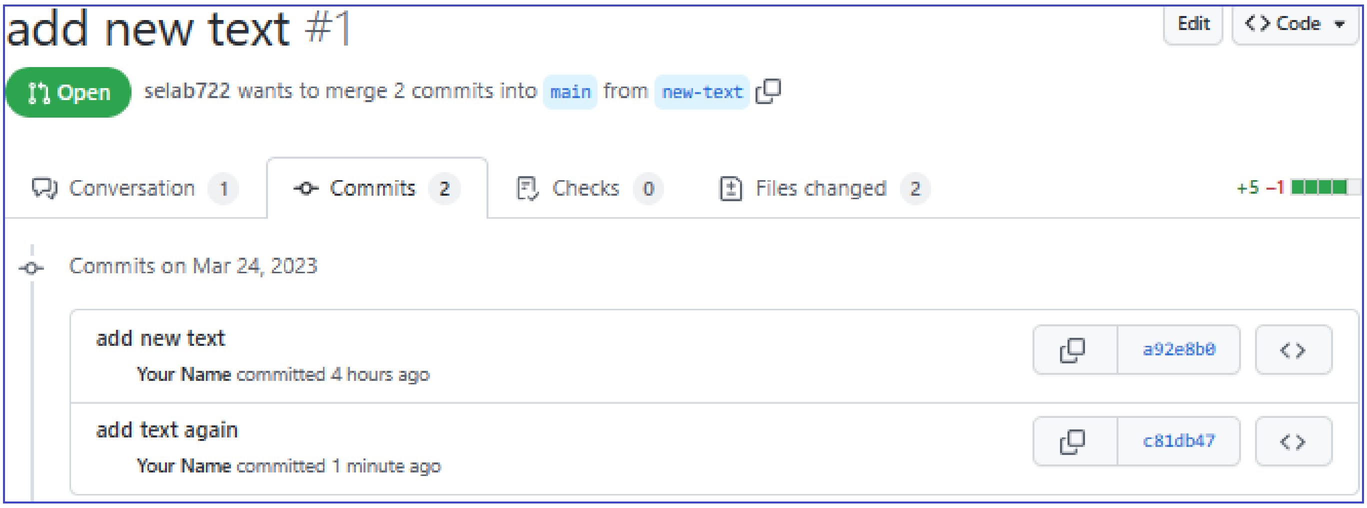
add new text #1

selab722 wants to merge 1 commit into `main` from `new-text`

```
4 README.md
@@ -1,3 +1,5 @@
1  # hello-world          1  # hello-world
2                         2
3 - init text             3 + init text
                          4 +
                          5 + new text

1 new txt file.txt
@@ -0,0 +1 @@
                          1 + something here
```

If others are not satisfy about this pull request, you can modify this pull request simply by make another commit in your branch and push it.



add new text #1

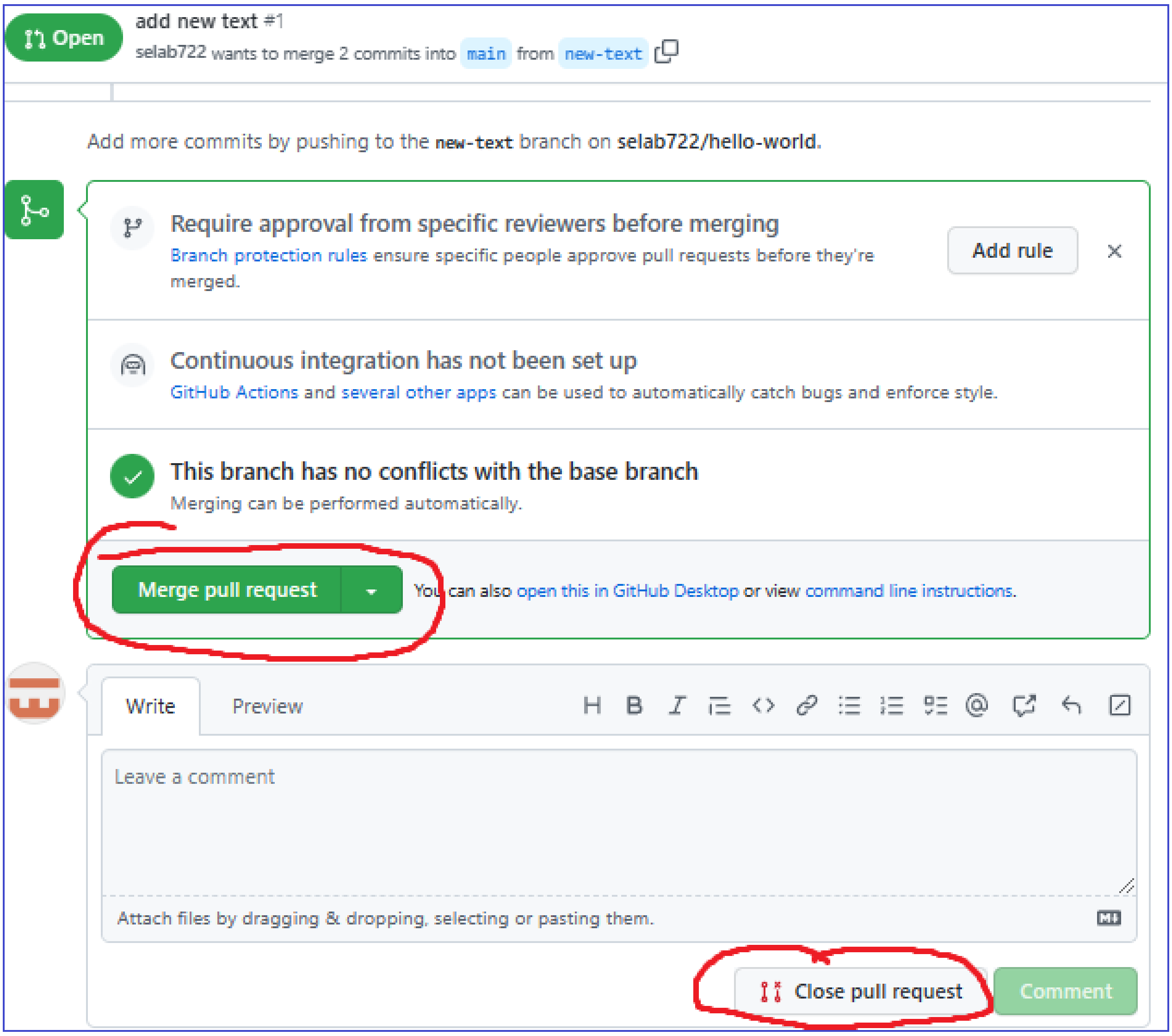
selab722 wants to merge 2 commits into main from new-text

Commits on Mar 24, 2023

add new text
Your Name committed 4 hours ago — a92e8b0

add text again
Your Name committed 1 minute ago — c81db47

When everything is ready, you can merge the branch by click "Merge pull request", then this pull request is finished. Or if you find this pull request is no long wanted, then you can click "Close pull request". This will also finish the request.



add new text #1

selab722 wants to merge 2 commits into main from new-text

Add more commits by pushing to the new-text branch on selab722/hello-world.

Require approval from specific reviewers before merging
Branch protection rules ensure specific people approve pull requests before they're merged.

Continuous integration has not been set up
GitHub Actions and several other apps can be used to automatically catch bugs and enforce style.

This branch has no conflicts with the base branch
Merging can be performed automatically.

You can also open this in GitHub Desktop or view command line instructions.

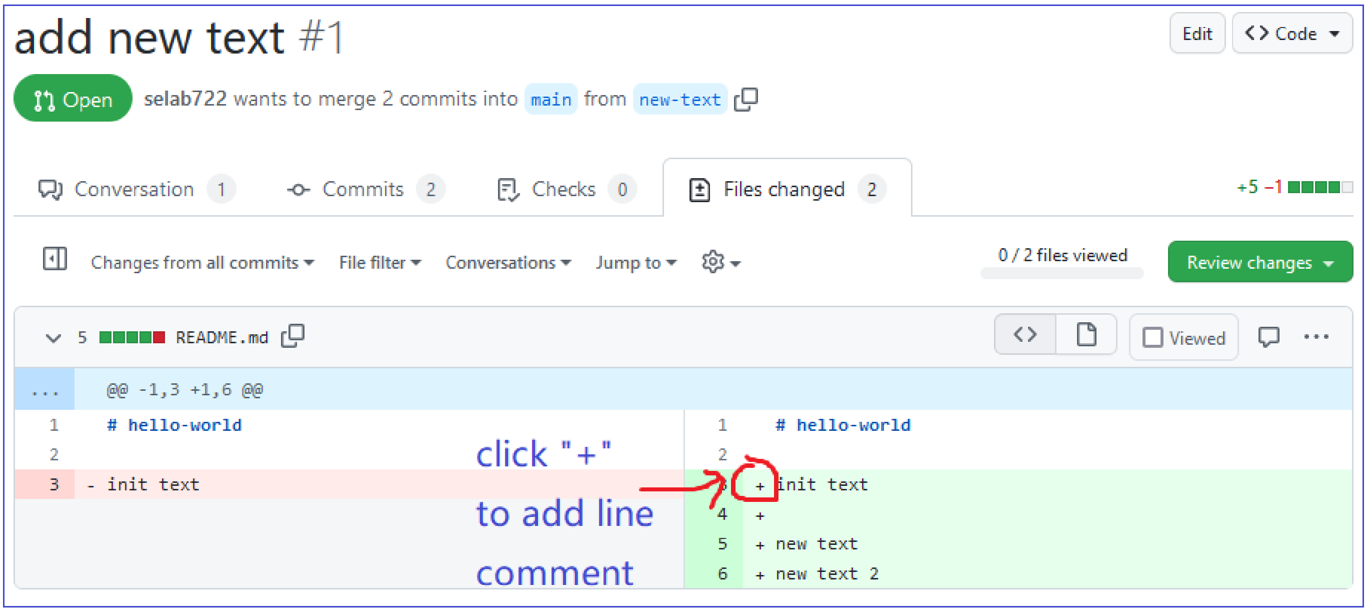
Leave a comment

Attach files by dragging & dropping, selecting or pasting them.

Line comment on a pull request

You already know that if your teammate is not satisfied about your pull request, it can make a comment.

If it is not satisfied about a single line of code, it can make a line comment in the "Files changed" view:



add new text #1

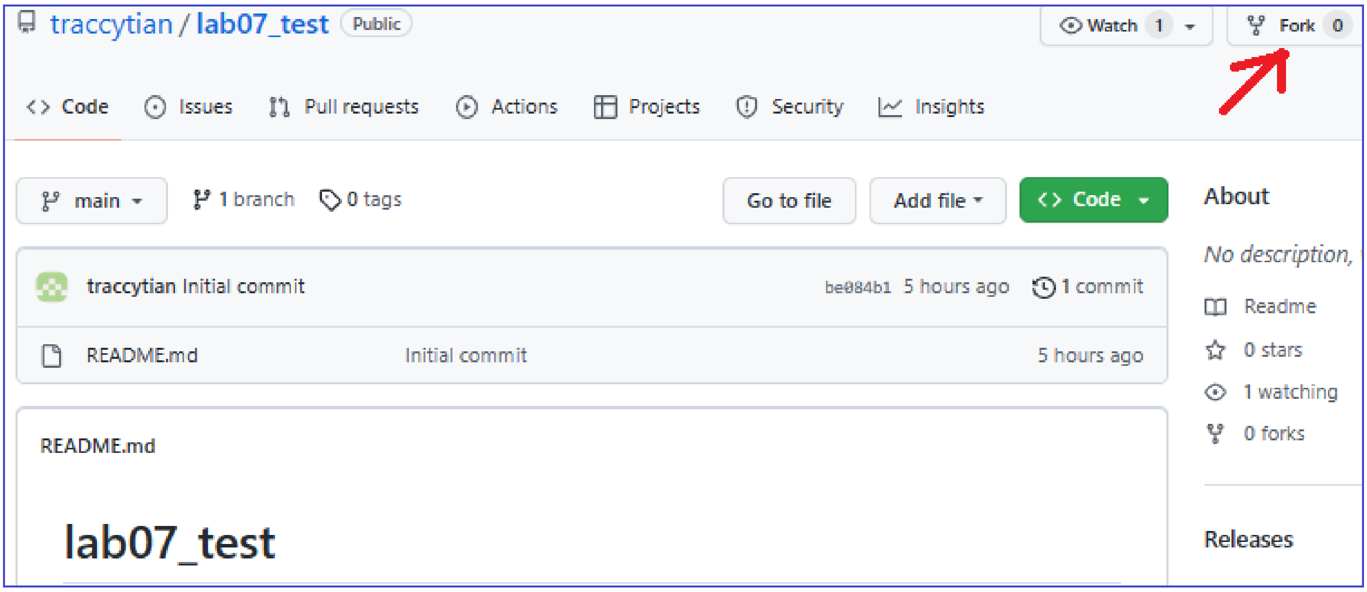
selab722 wants to merge 2 commits into main from new-text

```
@@ -1,3 +1,6 @@
1   # hello-world          1   # hello-world
2                          2
3 - init text              3 + init text
                           4 +
                           5 + new text
                           6 + new text 2
```

click "+" to add line comment

Pull requests to repos without write access

Sometimes the repo is owned by other people. You are not allowed to push or create new branches in that repo. In that case you can first do a "fork" to copy that repo in your account:



traccytian / lab07_test

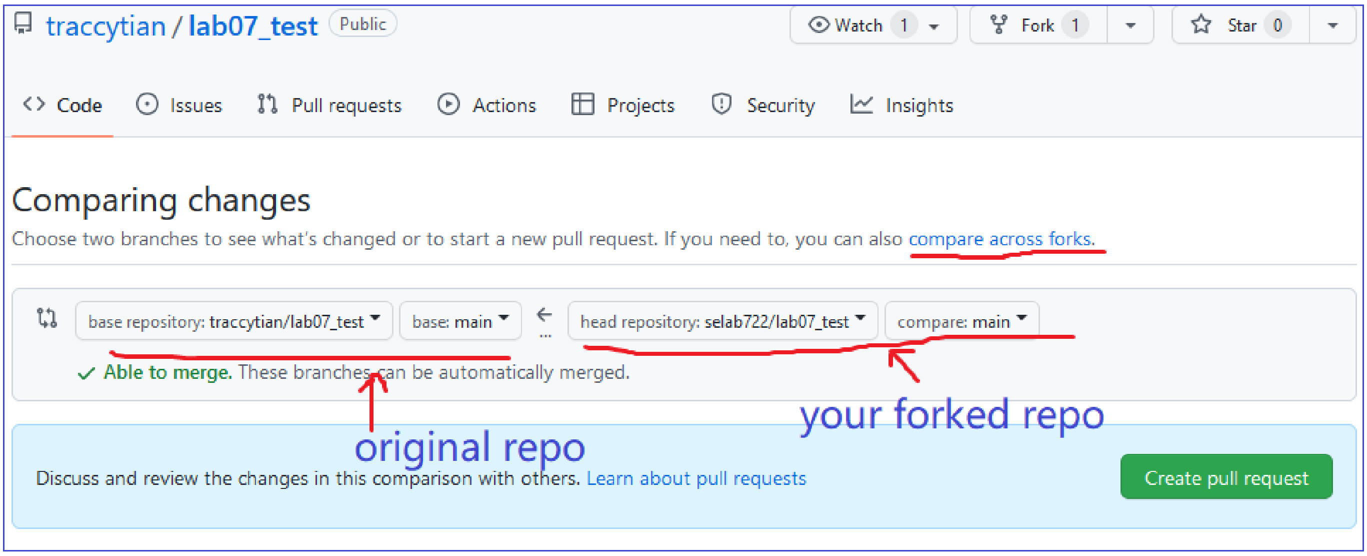
traccytian Initial commit be084b1 5 hours ago 1 commit

README.md	Initial commit	5 hours ago

README.md

lab07_test

A repo will appear in your account that look the same as the original one. After you modify and commit "your" repo, you can make a pull request which requests the author of the orignal repo to pull the changes from your repo:



traccytian / lab07_test Public

Watch 1 · Fork 1 · Star 0

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Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also compare across forks.

base repository: traccytian/lab07_test · base: main ← head repository: selab722/lab07_test · compare: main

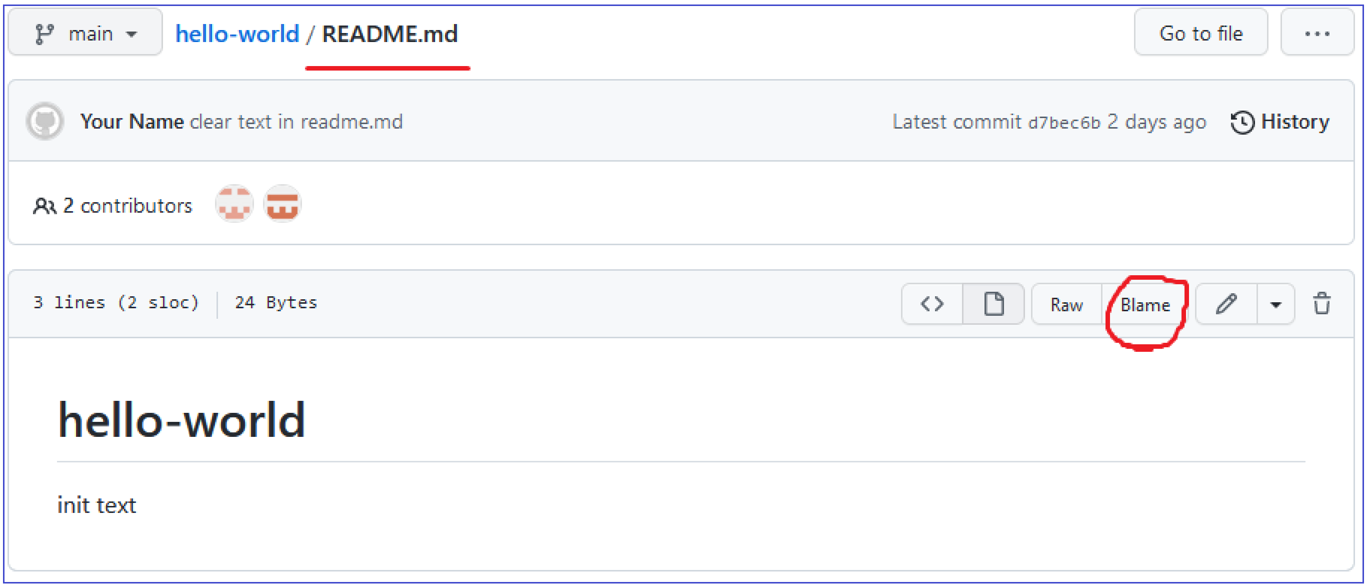
✓ Able to merge. These branches can be automatically merged.

Discuss and review the changes in this comparison with others. Learn about pull requests

Blame

You can see the history of your files with blame view.

Open a file in your repo, click "blame":



main · hello-world / README.md

Your Name clear text in readme.md — Latest commit d7bec6b 2 days ago

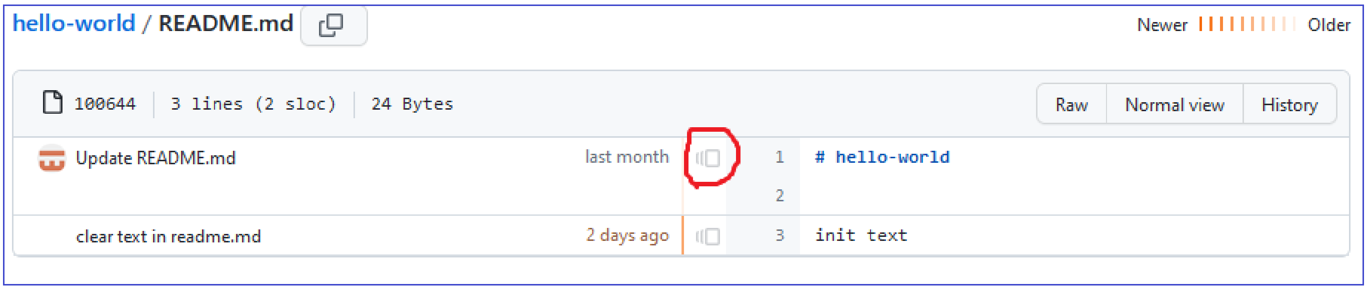
2 contributors

3 lines (2 sloc) | 24 Bytes

hello-world

init text

Then you will enter the blame view:



hello-world / README.md

100644 | 3 lines (2 sloc) | 24 Bytes

Update README.md	last month	1	# hello-world
		2	
clear text in readme.md	2 days ago	3	init text

In the blame view, if you click the button marked with red circle in the above figure, then you can see the history of this line of code! Each time you press this button, you see the previous version of this line with the commit info.

You can use "git blame filename" command in git bash to see the history of a file.