

# KamiLimu Web-Dev Git 102

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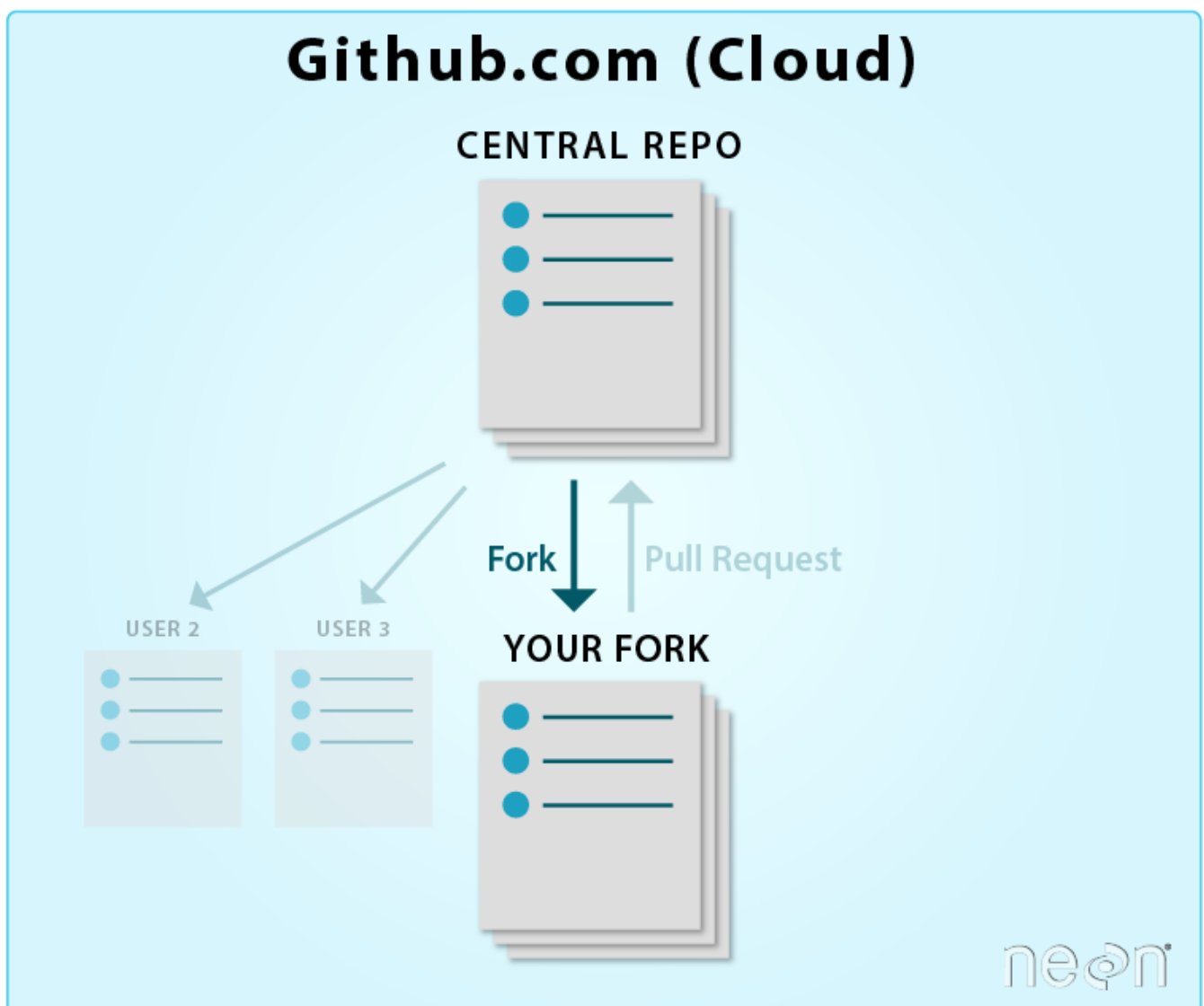
## Introduction.

You've recently joined NotACompany LTD as a Web Developer. Your first task is to add your details in the about us section of the website.

To complete the task follow the following 8 steps.

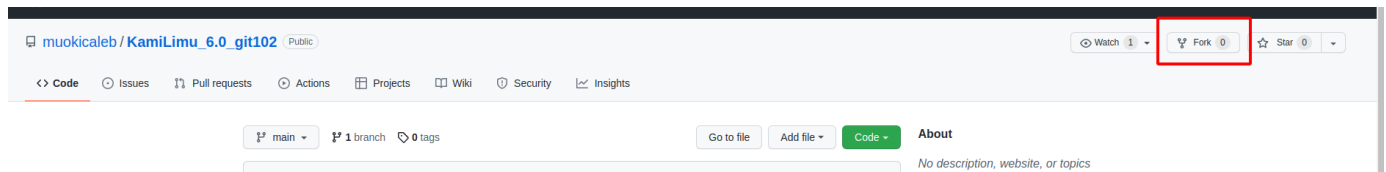
### Step 1. Create a Fork of the original repository.

A GitHub fork is a copy of a repository (repo) that sits in your account rather than the account from which you forked the data. Once you have forked a repo, you own your forked copy. This means that you can edit the contents of your forked repository without impacting the parent repo. ~ earthdatascience.org

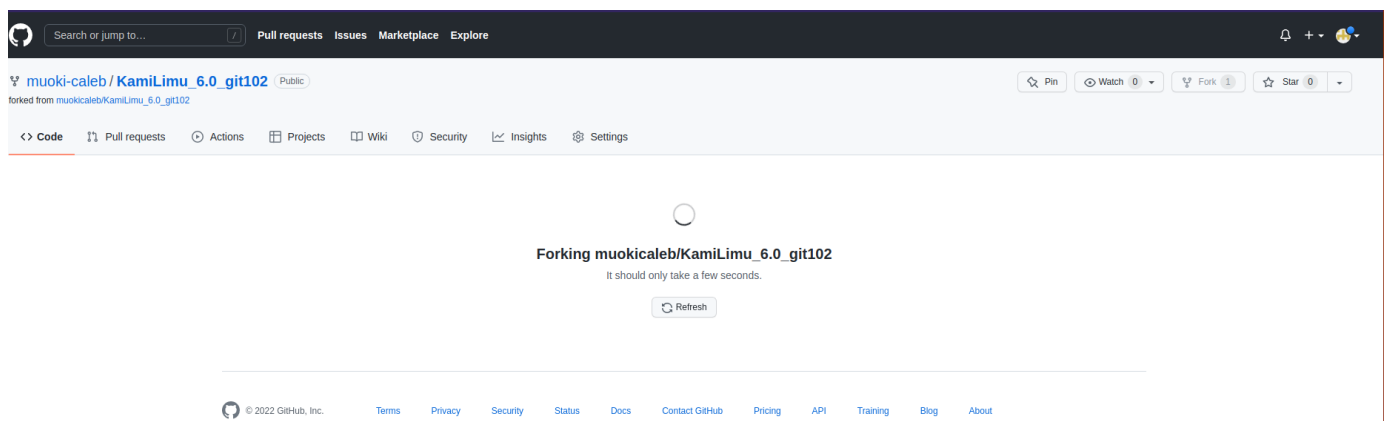


In our case, the central/original repo is [https://github.com/muokicalleb/KamiLimu\\_6.0\\_git102](https://github.com/muokicalleb/KamiLimu_6.0_git102)

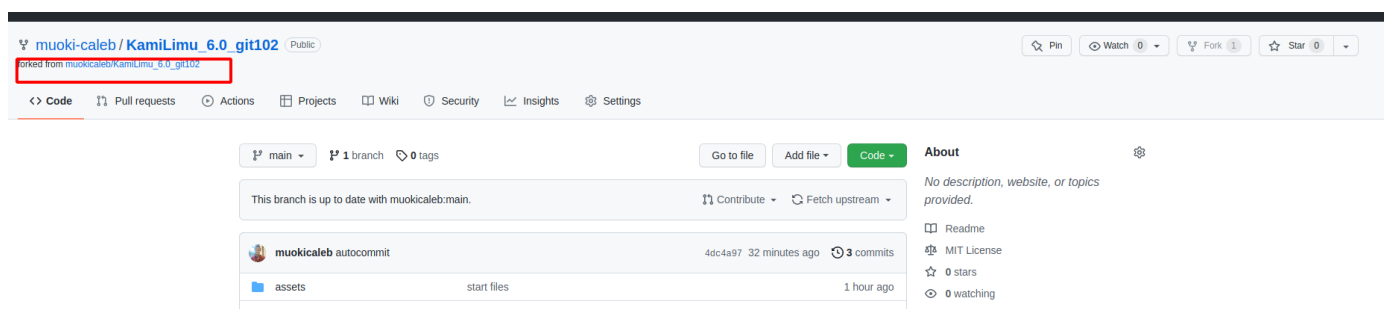
To fork click the fork button on the upper right corner.



This is how it looks while forking.



After it completes it will look like this.



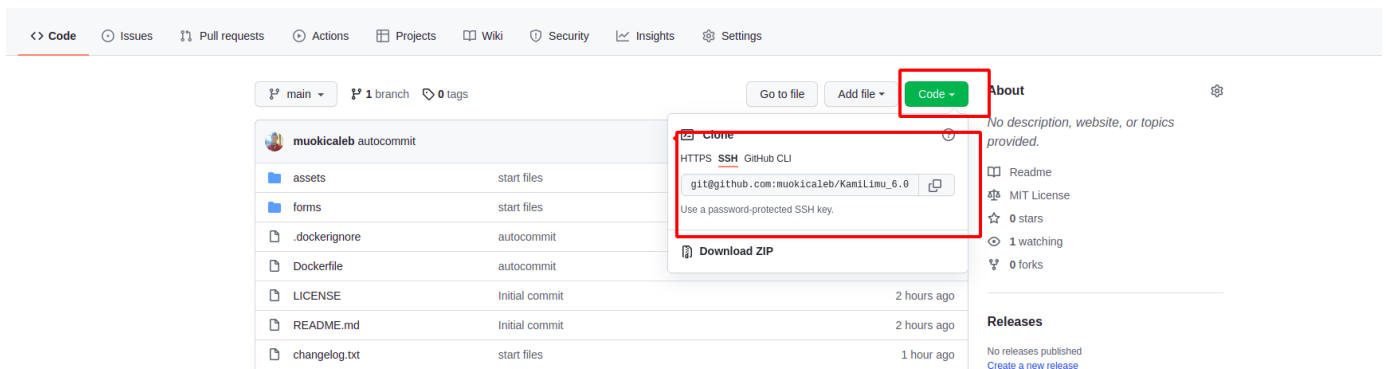
At this point, you have a copy of the project and can continue using our copy.

## Step 2. Clone the repo.

When you create a repository on GitHub.com, it exists as a remote repository. You can clone your repository to create a local copy on your computer and sync between the two locations. ~ <https://docs.github.com/en/repositories/creating-and-managing-repositories/cloning-a-repository>.

The repo we forked is on github.com (remote server) to get it to our local machine we need to clone it. To clone:

i. Copy the git by clicking the green `code` button.



ii. Open a terminal where you want your project repo to be and enter the following command.

```
git clone <git repo url>
```

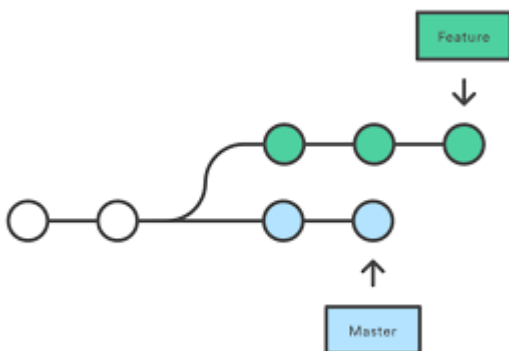
```
→ ~ git clone git@github.com:muokicalab/KamiLimu_6.0_git102.git
Cloning into 'KamiLimu_6.0_git102'...
remote: Enumerating objects: 164, done.
remote: Counting objects: 100% (164/164), done.
remote: Compressing objects: 100% (126/126), done.
Receiving objects: 23% (38/164), 772.00 KiB | 606.00 KiB/s
```

iii. `cd` into the directory.

```
→ ~ cd KamiLimu_6.0_git102
→ KamiLimu_6.0_git102 git:(main) |
```

### Step 3. Create a branch

A git branch is a new/separate version of the main repo. A git branch allows developers to diverge from the main version of the code to fix a bug or add a feature.



In our situation, we currently have a main branch and need to create another branch to make our changes.

To branch open terminal in the project directory and enter

```
git checkout -b <branch name>
```

```
→ Kamilimu_6.0_git102 git:(main) git checkout -b feature-add-muoki-details  
Switched to a new branch 'feature-add-muoki-details'  
→ Kamilimu_6.0_git102 git:(feature-add-muoki-details) |
```

The changes made in the new branch will not affect the main branch.

#### Step 4. Make changes and commit changes.

Open IDE of choice and make changes needed.

```
Kamilimu_6.0_git102 git:(feature-add-muoki-details) codium .  
Kamilimu_6.0_git102 git:(feature-add-muoki-details)
```

- Make changes.

```
652         <span>Accountant</span>  
653     </div>  
654 </div>  
655 </div>  
656  
657 </div>  
658 <div class="row">  
659     <!--new change-->  
660     <!--charlesmutaroki@students.uonbi.ac.ke -->  
661     <!--wanjaerica@gmail.com -->  
662     <!--mboyaivy@gmail.com-->  
663     <!--machoguabednego6@gmail.com -->  
664 </div>  
665 <div class="row">  
666     <!--edwin.irungu.8042@gmail.com -->  
667     <!--sjmanyarkiy@gmail.com -->  
668     <!--japhetbrandon@gmail.com -->  
669     <!--charityjelimo893@gmail.com -->  
670 </div>  
671 <div class="row">  
672     <!--estherwavinya80@gmail.com -->  
673     <!--ochiengroneyjuma909@gmail.com-->  
674     <!--mbichikariuki01@gmail.com-->  
675 </div>  
676  
677  
678
```

- Add changes

```
git add ./index.html
```

```
KamiLimu_6.0_git102 git:(feature-add-muoki-details) x git add ./index.html
KamiLimu_6.0_git102 git:(feature-add-muoki-details) x
```

- Commit changes

```
git commit
```

```
→ KamiLimu_6.0_git102 git:(feature-add-muoki-details) x git commit -m "Very descriptive message."
[feature-add-muoki-details 70dab26] Very descriptive message.
1 file changed, 1 insertion(+)
→ KamiLimu_6.0_git102 git:(feature-add-muoki-details) |
```

## Step 5. Push changes

Git push entails moving your code from your local machine to the remote git server (<https://github.com>)

When pushing it is important to specify the remote server you are pushing to and the branch.

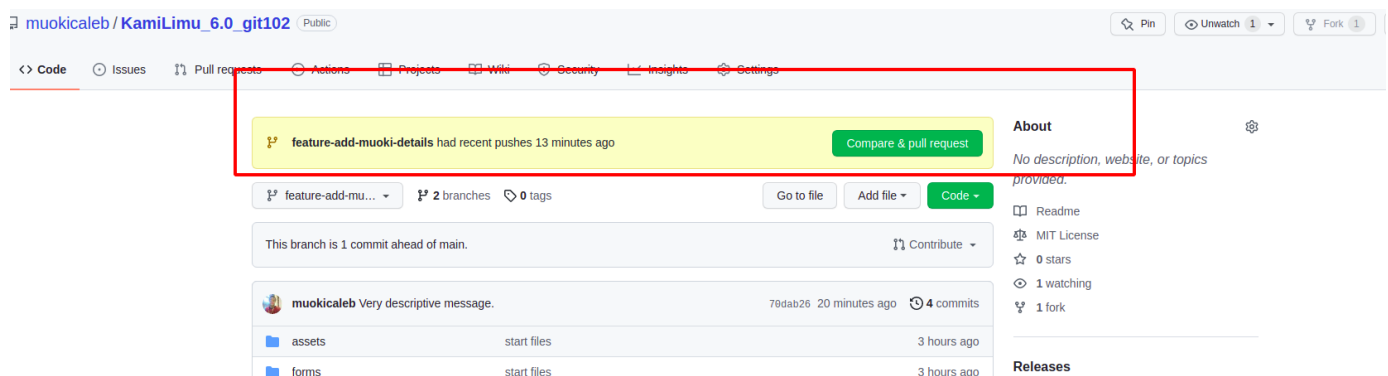
to push

```
git push <remote> <branch>
```

```
→ KamiLimu_6.0_git102 git:(feature-add-muoki-details) git push origin feature-add-muoki-details
Counting objects: 3, done.
Delta compression using up to 12 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 331 bytes | 331.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
remote:
remote: Create a pull request for 'feature-add-muoki-details' on GitHub by visiting:
remote:   https://github.com/muokicalleb/KamiLimu_6.0_git102/pull/new/feature-add-muoki-details
remote:
To github.com:muokicalleb/KamiLimu_6.0_git102.git
 * [new branch]      feature-add-muoki-details -> feature-add-muoki-details
→ KamiLimu_6.0_git102 git:(feature-add-muoki-details) |
```

## Step 6. Create a pull request.

If you go to the project repo you'll find a `compare & pull request` notification.



The screenshot shows the GitHub repository page for `muokicalleb/KamiLimu_6.0_git102`. A red box highlights a notification bar that says "feature-add-muoki-details had recent pushes 13 minutes ago" with a green button labeled "Compare & pull request". Below the notification, the repository details are visible, including the branch "feature-add-muoki-details" which is 1 commit ahead of main. The commit history shows a commit by "muokicalleb" with the message "Very descriptive message." and a list of files: "assets" and "forms", both marked as "start files".

Click the `Compare & pull request` button.

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

### 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](#).

base: main ← compare: feature-add-muoki-details ✓ Able to merge. These branches can be automatically merged.

Very descriptive message.

Write Preview

H B I

Leave a comment

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

Create pull request

Reviewers

muoki-caleb

Assignees

No one—assign yourself

Labels

None yet

Projects

None yet

Milestone

No milestone

Linked issues

Use Closing keywords in the description to automatically close issues

Helpful resources

[GitHub Community Guidelines](#)

Remember, contributions to this repository should follow our [GitHub Community Guidelines](#).

On this page, you can specify where to merge to, the reviewers, and the pull request message. once satisfied with the changes you can click on `create pull request`.

Issues Pull requests Actions Projects Wiki Security Insights Settings

### Very descriptive message. #1

Open

muokicalleb wants to merge 1 commit into `main` from `feature-add-muoki-details`

Conversation 0

Commits 1

Checks 0

Files changed 1

+1 -0

muokicalleb commented now

very helpful comment describing the solution etc

Very descriptive message.

70dab26

muokicalleb requested a review from muoki-caleb now

Add more commits by pushing to the `feature-add-muoki-details` branch on `muokicalleb/KamiLimu_6.0_git102`.

This branch has not been deployed

No deployments

Review requested

Review has been requested on this pull request. It is not required to merge. [Learn more](#).

1 pending reviewer

This branch has no conflicts with the base branch

Merging can be performed automatically.

Merge pull request or view [command line instructions](#).

Reviewers

muoki-caleb

Still in progress? Convert to draft

Assignees

No one—assign yourself

Labels

None yet

Projects

None yet

Milestone

No milestone

Linked issues

Successfully merging this pull request may close these issues.

None yet

Notifications

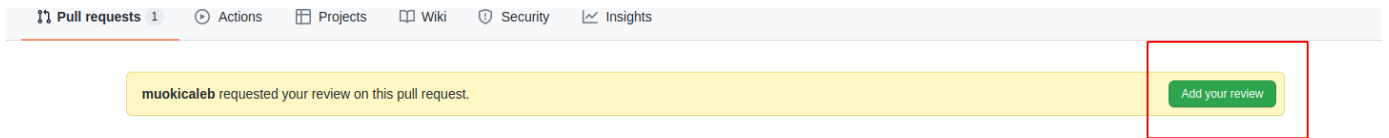
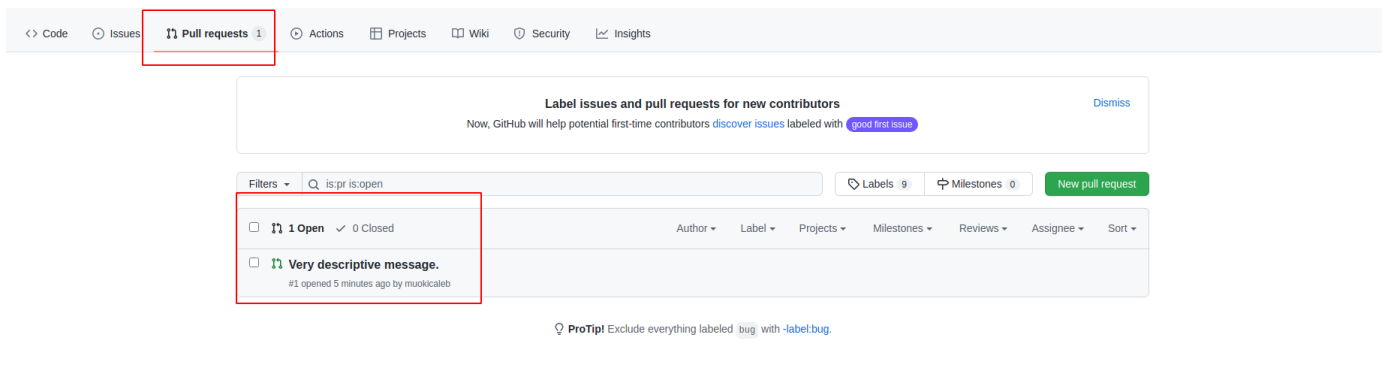
Customize

Unsubscribe

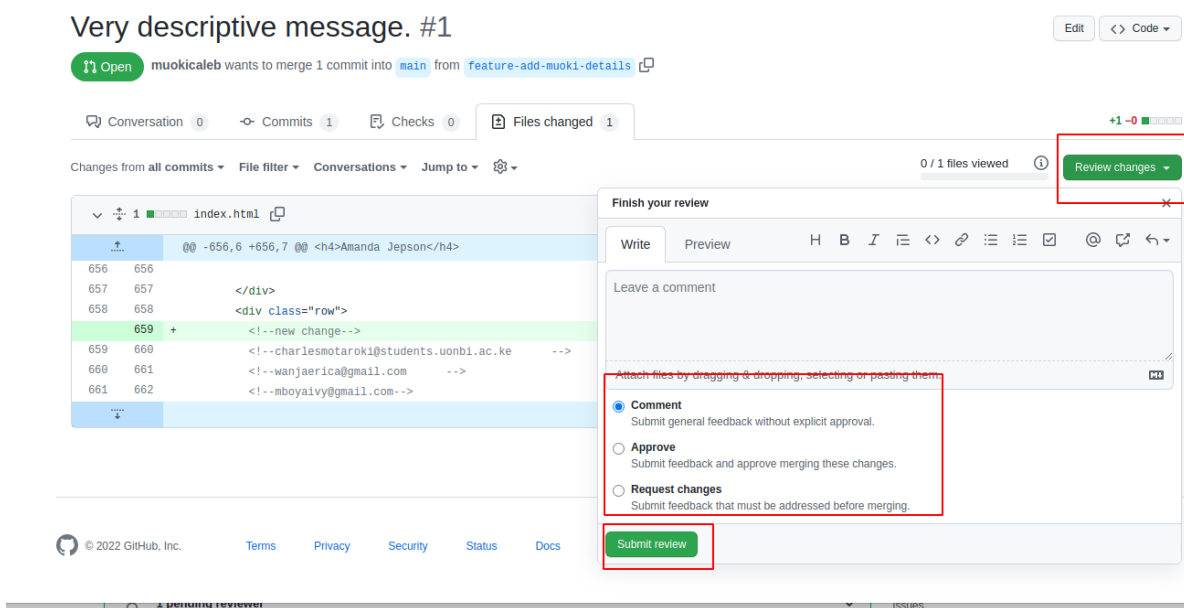
You're receiving notifications because you're watching this repository

### Step 7. Review PR

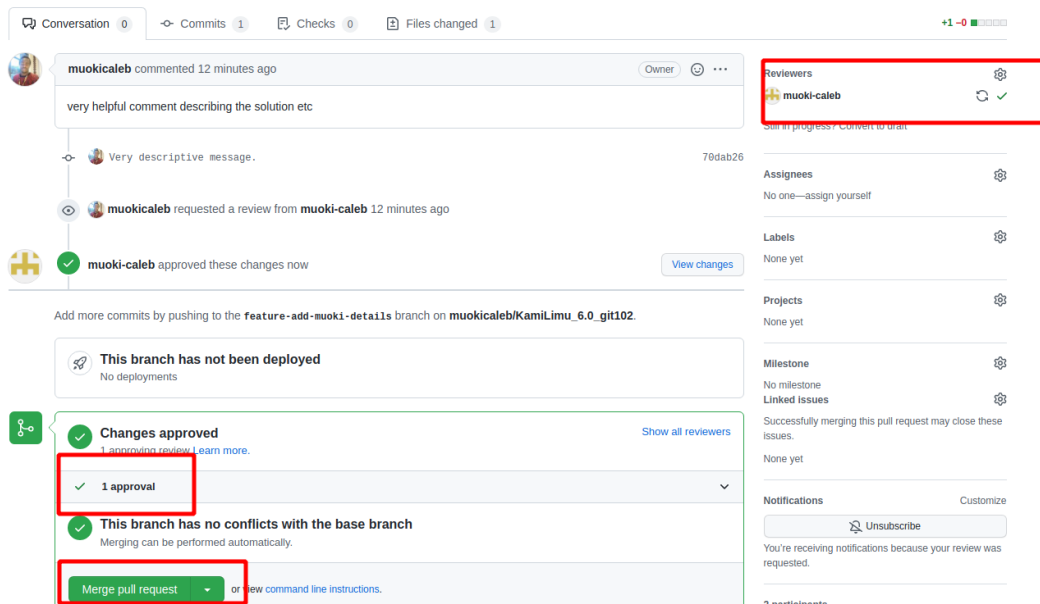
As the owner of the project or a contributor, you can review and approve pull requests. To review pull requests click on `Pull request` in the navigation tab and select the PR you want to review.



You take a look at the commits & files then either comment, approve or request changes.

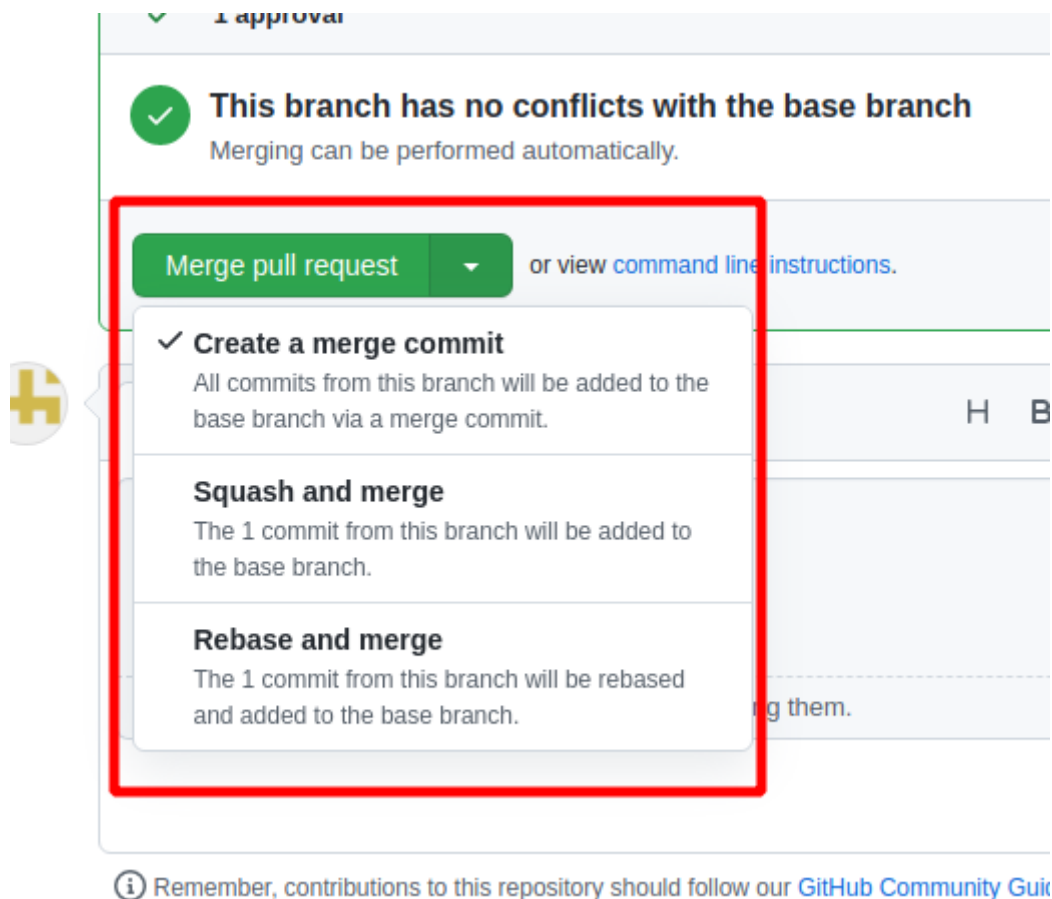


After approving changes.  
you'll be able to merge the changes.



## Step 8. Merge &/ Rebase

To join the branch we created to the main branch we have three options.



1. **Create a merge commit** - All commits from this branch will be added to the base branch via a merge commit.
2. **Squash and merge** - The 1 commit from this branch will be added to the base branch.
3. **Rebase and merge** - The 1commit from this branch will be rebased and added to the base branch

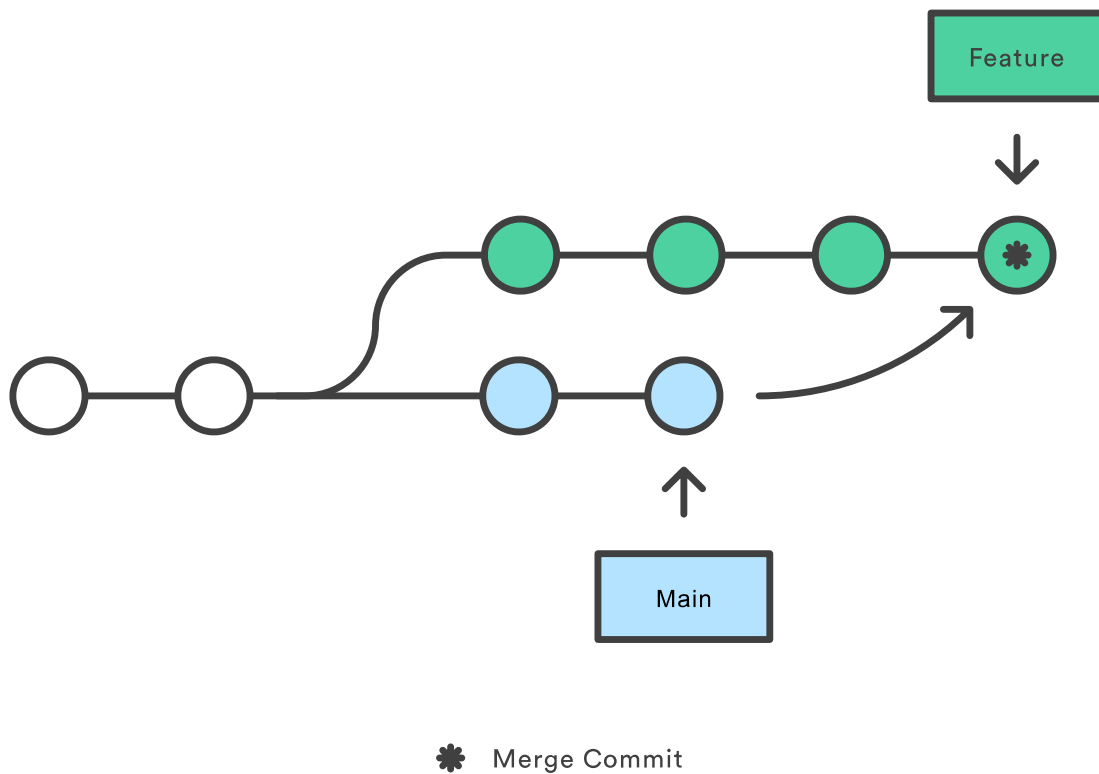
see - [link](#)



**Note:** The difference between merging and rebase is:

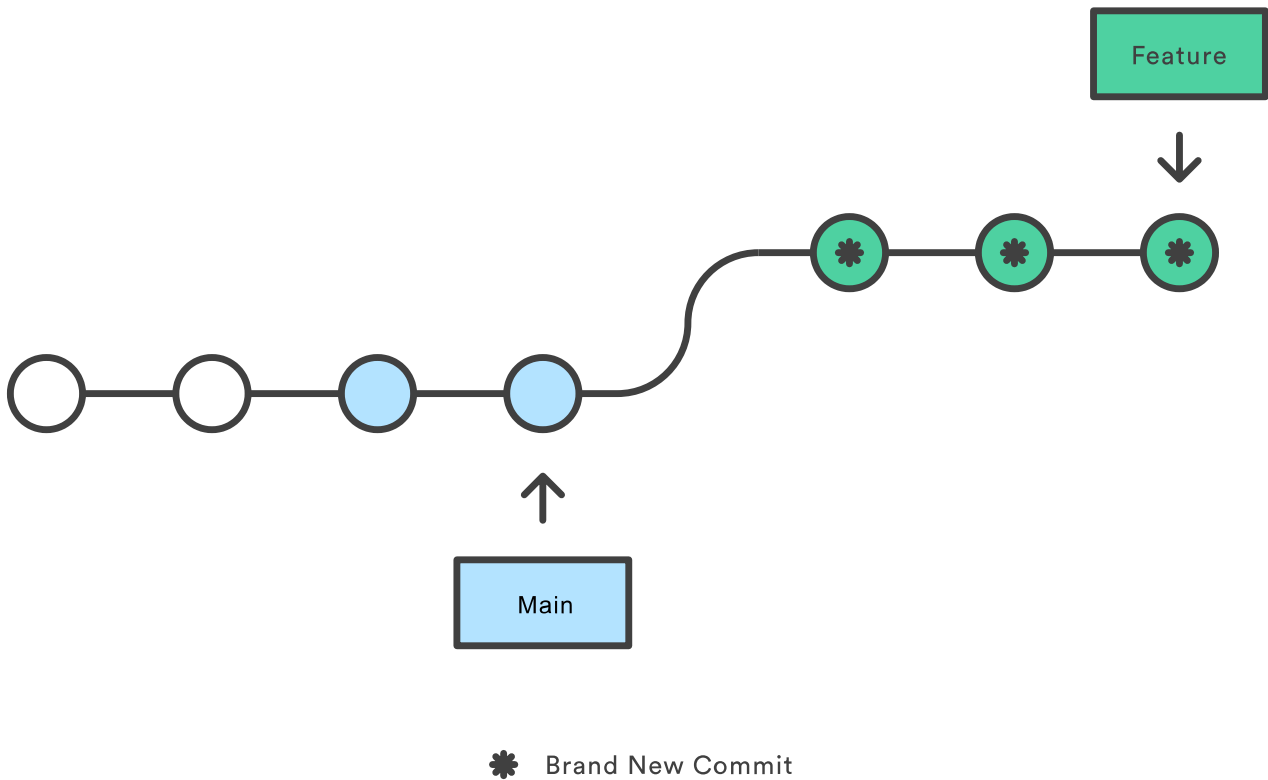
- If you are merging main into the feature branch, Merge creates a new "merge commit" in the feature branch that ties together the histories of both branches, giving you a branch that looks like.

Merging main into the feature branch



- If you are rebasing the feature branch onto the main, the entire feature branch is moved to begin the tip of the main branch, this incorporating all of the new commits in the main. But, instead of using a merge commit, rebasing re-writes the project history by creating brand new commits for each commit in the original branch.

## Rebasing the feature branch onto main



In our case, we will be using `Squash and merge`.

Very descriptive message. #1  
muokicalleb wants to merge 1 commit into `main` from `feature-add-muoki-detail`

muoki-caleb approved these changes 2 hours ago

Add more commits by pushing to the `feature-add-muoki-detail` branch on `muokicalleb/KamiLimu_6.0_git102`.

This branch has not been deployed  
No deployments

Changes approved  
1 approving review [Learn more](#)

1 approval

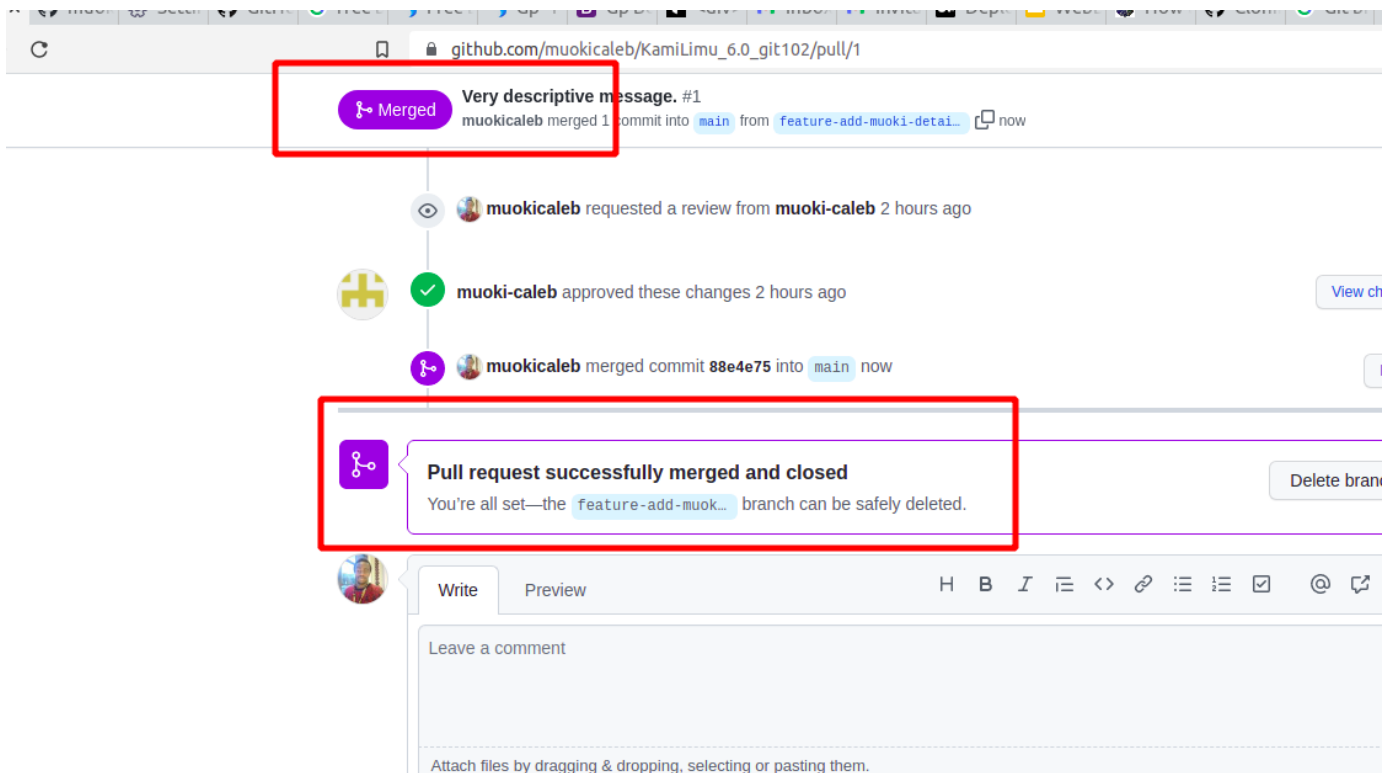
This branch has no conflicts with the base branch  
Merging can be performed automatically.

**Squash and merge** or view [command line instructions](#).

Write Preview

Leave a comment

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



## Conclusion.

Congratulations you've successfully git forked, branched, made changes to the code base, submitted a PR, reviewed a PR, and merged it to prod.

Go you!!!!

## References.

0. [https://github.com/muokicalleb/KamiLimu\\_6.0\\_git102](https://github.com/muokicalleb/KamiLimu_6.0_git102)
1. [https://www.earthdatascience.org/workshops/intro-version-control-git/about-works/#:~:text=A  
GitHub fork is a,without impacting the parent repo.](https://www.earthdatascience.org/workshops/intro-version-control-git/about-works/#:~:text=A%20GitHub%20fork%20is%20a,without%20impacting%20the%20parent%20repo.)
2. <https://docs.github.com/en/repositories/creating-and-managing-repositories/cloning-a-repository>
3. <https://www.atlassian.com/git/tutorials/merging-vs-rebasing>
4. <https://rietta.com/blog/github-merge-types/>