Fork a Repository:

A fork is a copy of a repository. Forking a repository allows you to freely experiment with changes without affecting the original project.

Most commonly, forks are used to either propose changes to someone else's project or to use someone else' project as a starting point for your own idea. You can fork a repository to create a copy of the repository and make changes without affecting the upstream repository.

Difference between Fork and pull request:

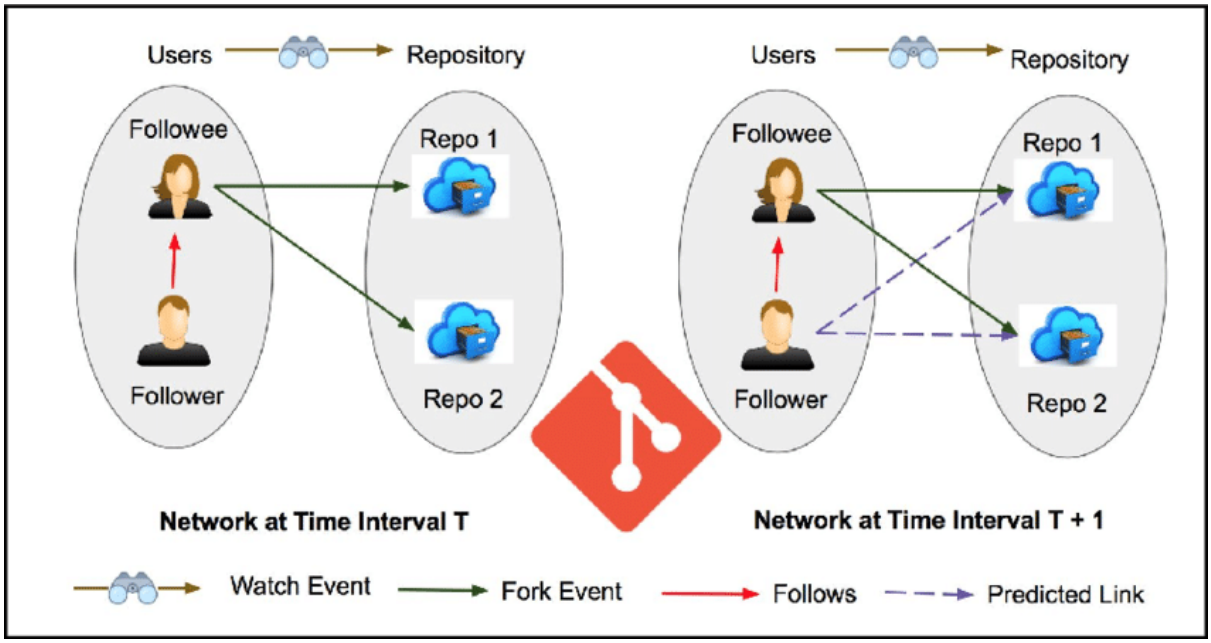
The difference is that **pull copies the code to your machine to be worked on with the intent to pass your changes back to the original repository**. A fork copies the code into a separate GitHub repo to be an independently evolving version of the code separate form the original.

What is the use of Git fork?

A fork is a rough copy of a repository. Forking a repository allows you to freely test and debug with changes without affecting the original project. One of the excessive use of forking is **to propose changes for bug fixing**.

What is fork in Devops?

A fork is **a complete copy of a repository, including all files, commits, and (optionally) branches**. ... After a fork has been created, new files, folders, and branches are not shared between the repositories unless a pull request carries them along.



Propose of changes to someone else's project

For example , you can use forks to propose changes related to fixing a bug. Rather than logging an issue for a bug you've found , you can:

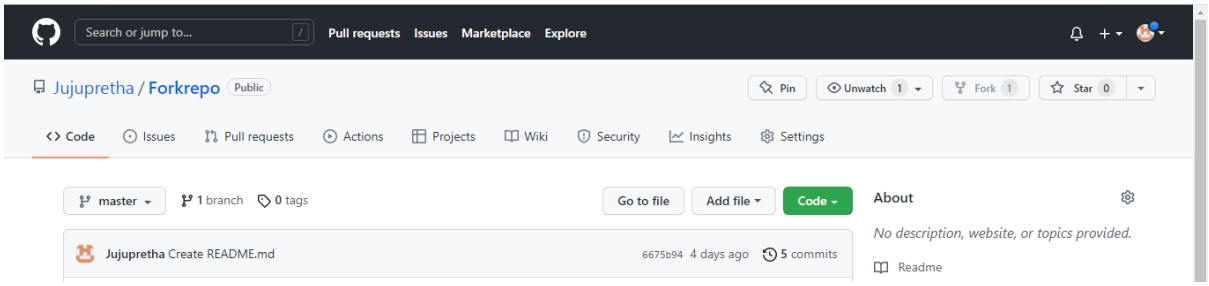
- Fork the repository.
- Make the fix.
- Submit a pull request to the project owner.

Use someone else's project as a starting point for your own idea.

Open source software is based on the idea that by sharing code, we can make better, more reliable software .

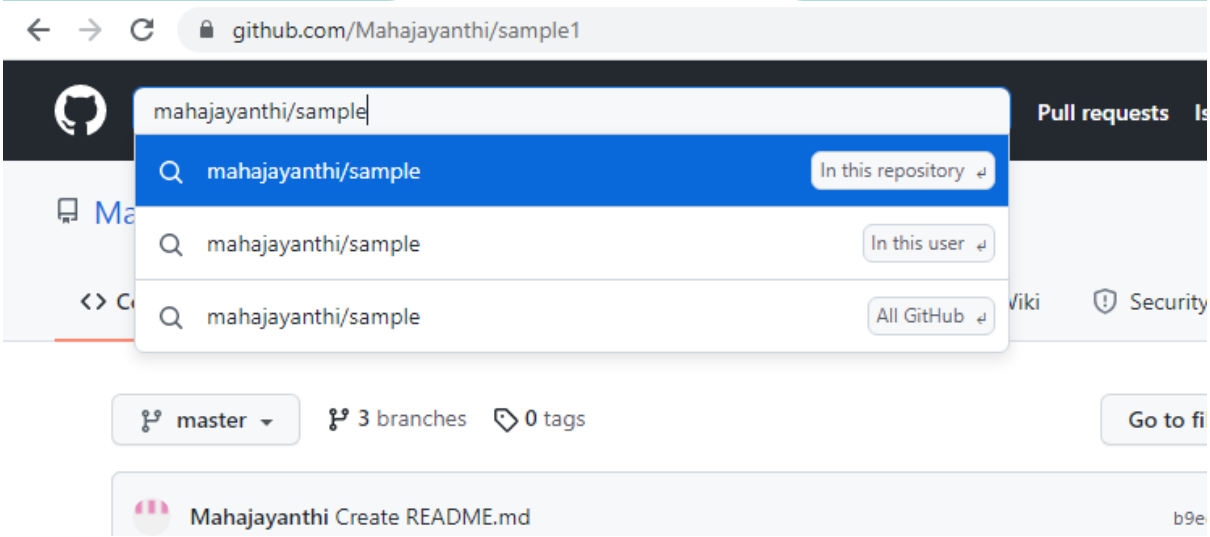
Forking a repository:

You might fork a project to propose changes to the upstream, or original, repository. In this case , its good practice to regularly sync your fork with the upstream repository. To do this, you'll need to use Git on the command line. You can practice setting the upstream repository using the **https://github.com/Jujupretha/Forkrepo.git**.gitrepository you just forked.



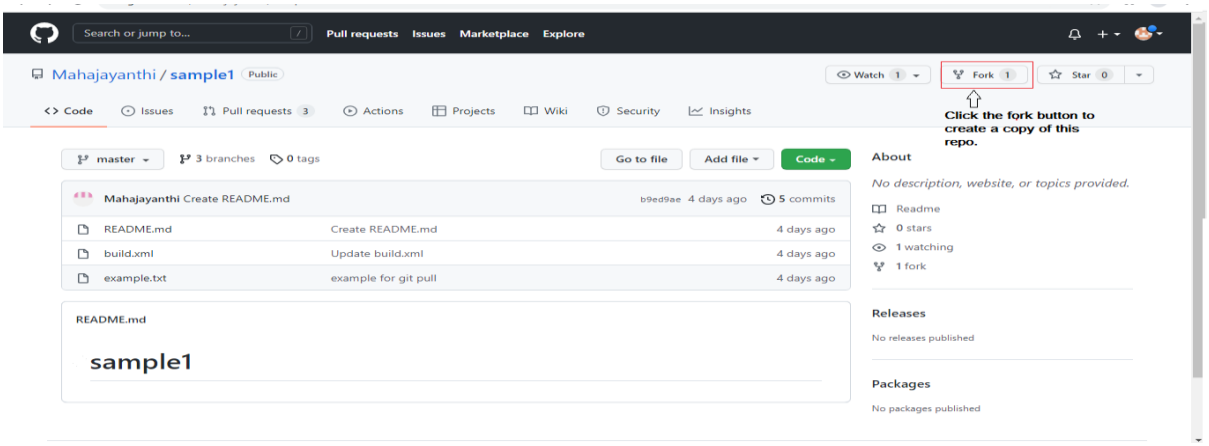
All first we need to do is :

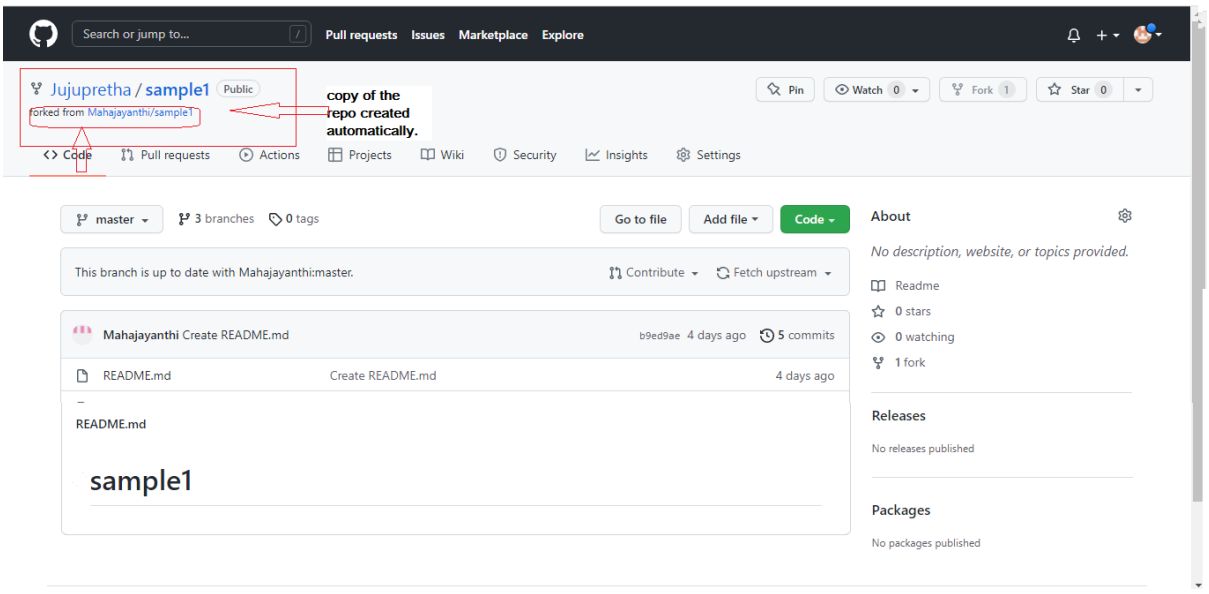
1. On GitHub.com, navigate to the **https://github.com/Mahajayanthi/sample1** repository. (From my repository we need to navigate to the Fork Repository).



We need to search the repository which we need to fork.

2. In the top-right corner of the page, click Fork.



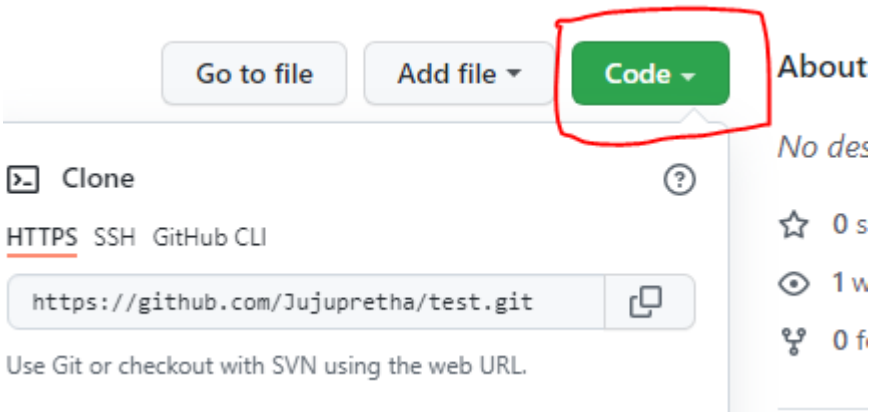


Cloning your forked repository

Right now , you have a fork of the **https://github.com/Mahajayanthi/sample1** repository, but you don't have the files in that repository locally on your computer.

1. On the GitHub.com, navigate to **your fork** of the **https://github.com/Mahajayanthi/sample1** repository.

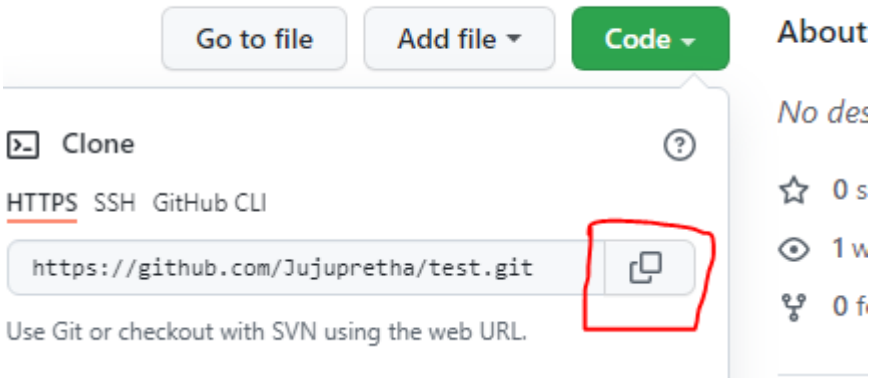
2. Above the list of files, click **Code**.



Steps to clone:

3. To clone the repository using HTTPS, under "Clone with HTTPS", click copy button . To clone the repository using an

SSH key , including a certificate issued by your organization's SSH certificate authority, click **Use SSH,** the click copy. To clone a repository using GitHub CLI, click **Use GitHub CLI,** then click copy.



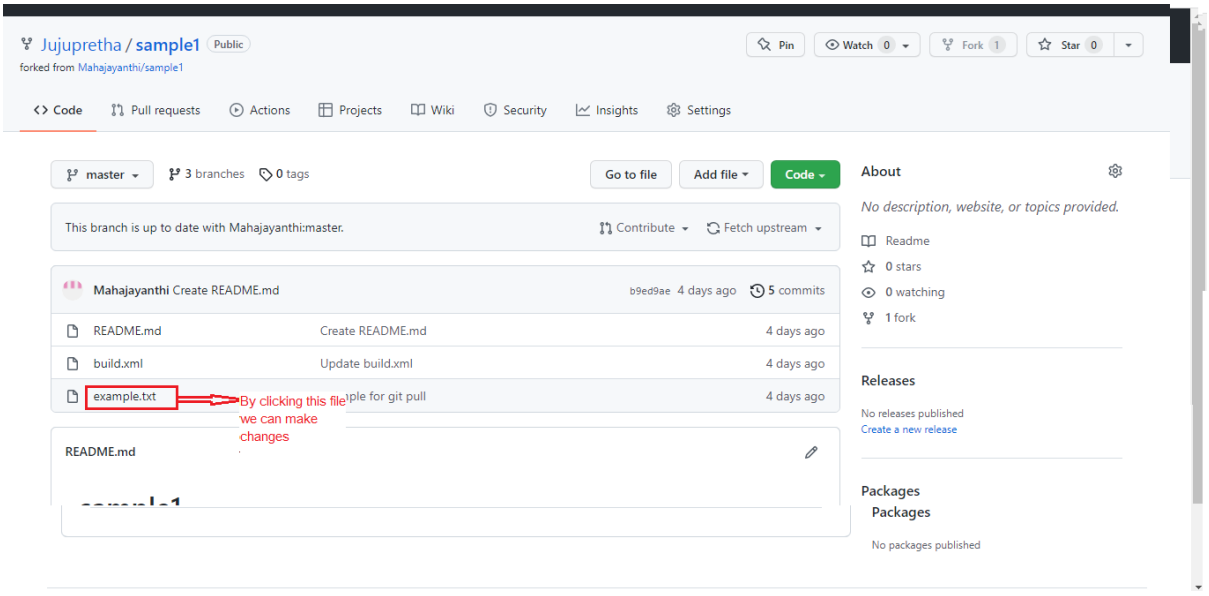
4. Open Git Bash.

5. Change the current working directory to the location where you want the cloned directory.

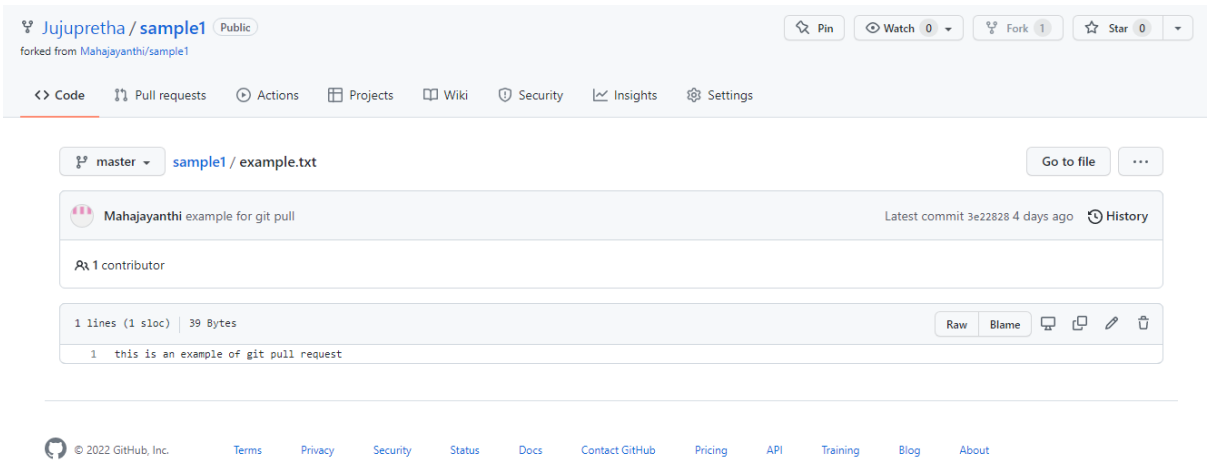
6. Type git clone, and then paste the URL you copied earlier. It will look like this, with your GitHub username instead of YOUR-USERNAME:
   https://github.com/Jujupretha/test.git

7. Press **Enter**. Your local clone will be created.
   $git clone https://gitbub.com/YOUR-USERNAME/Spoon-knife
   >Cloning into 'Spoon-Knife'….

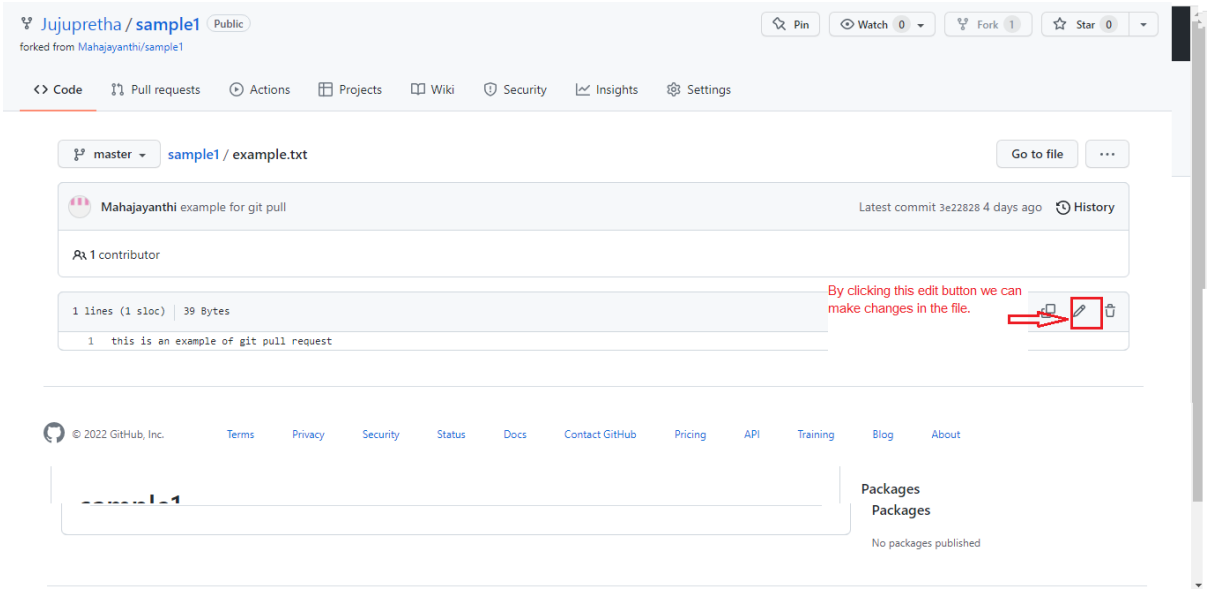
   Steps to make changes in file:
8. Click on the file we need to contribute .



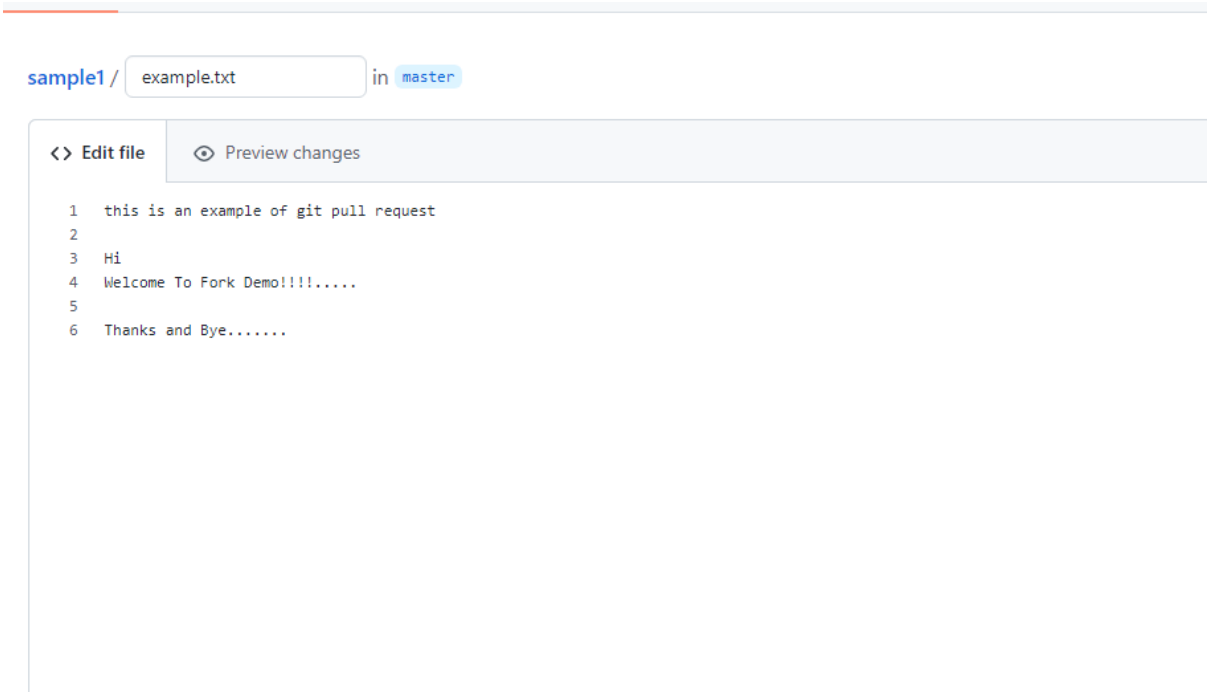
The file will looks like:



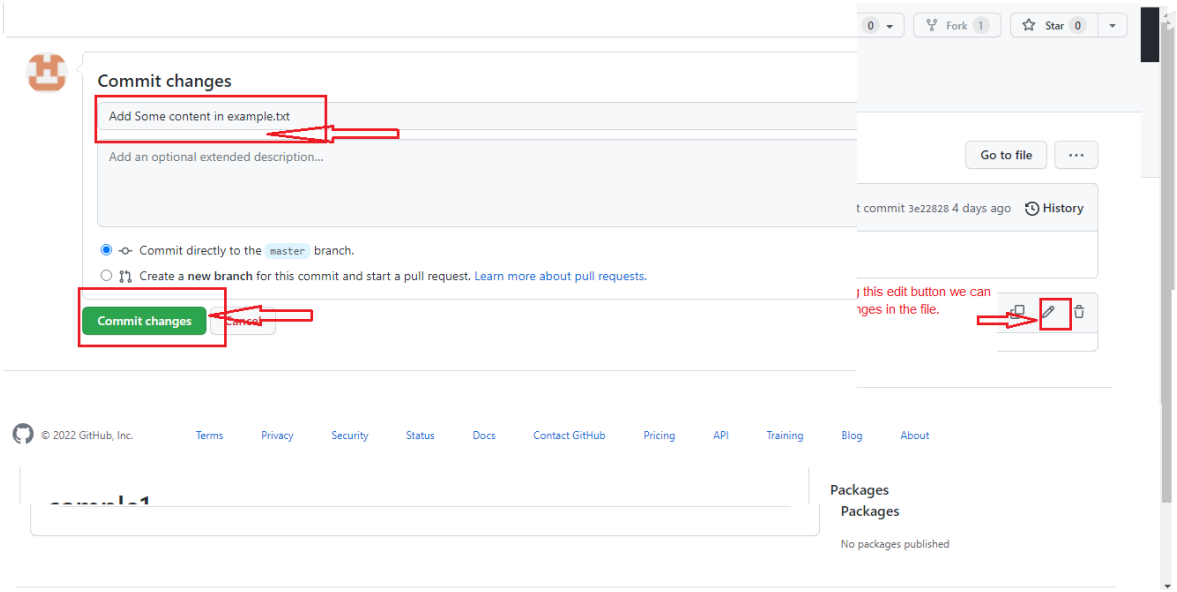
9. We need to edit the file by clicking Edit button:



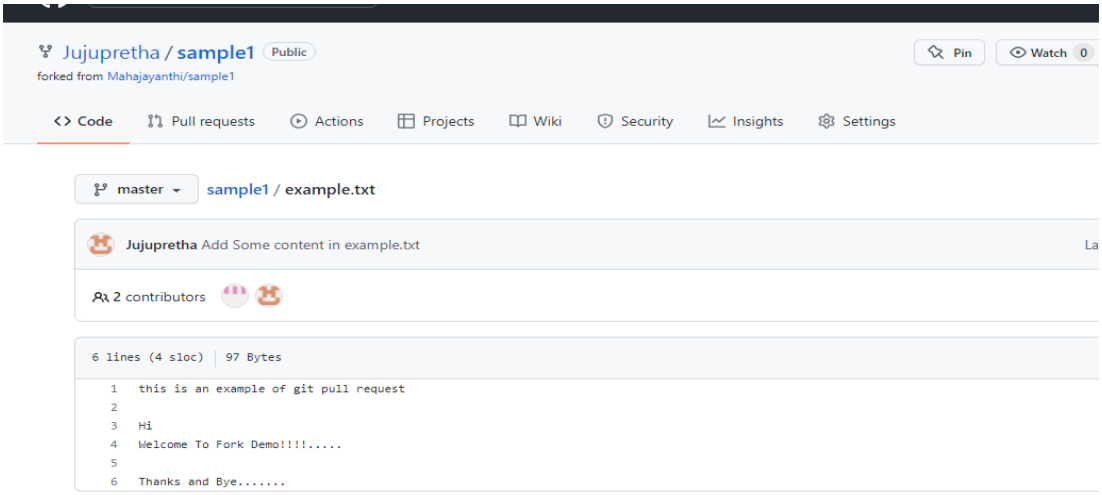
10. In the given text area we can make changes or add some content to it.



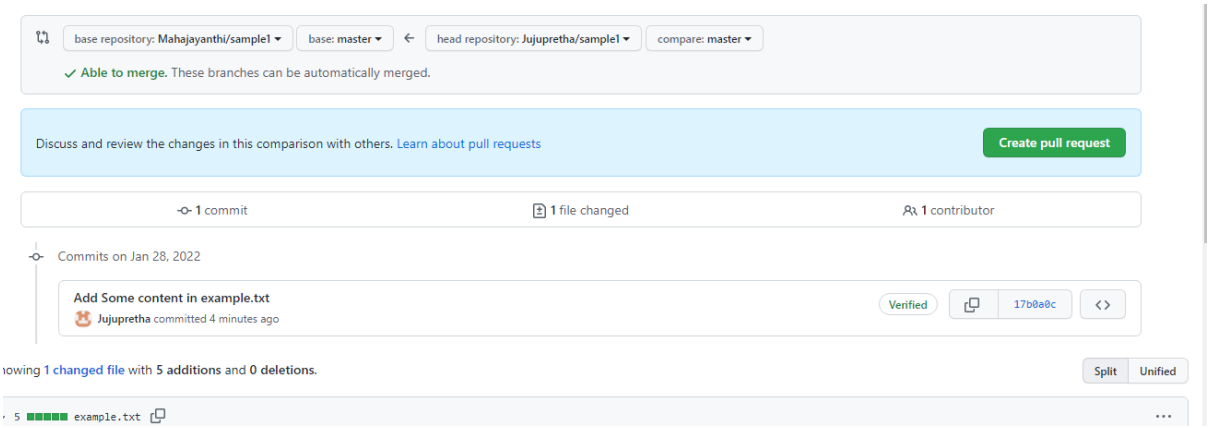
11. After this we need to commit the file.



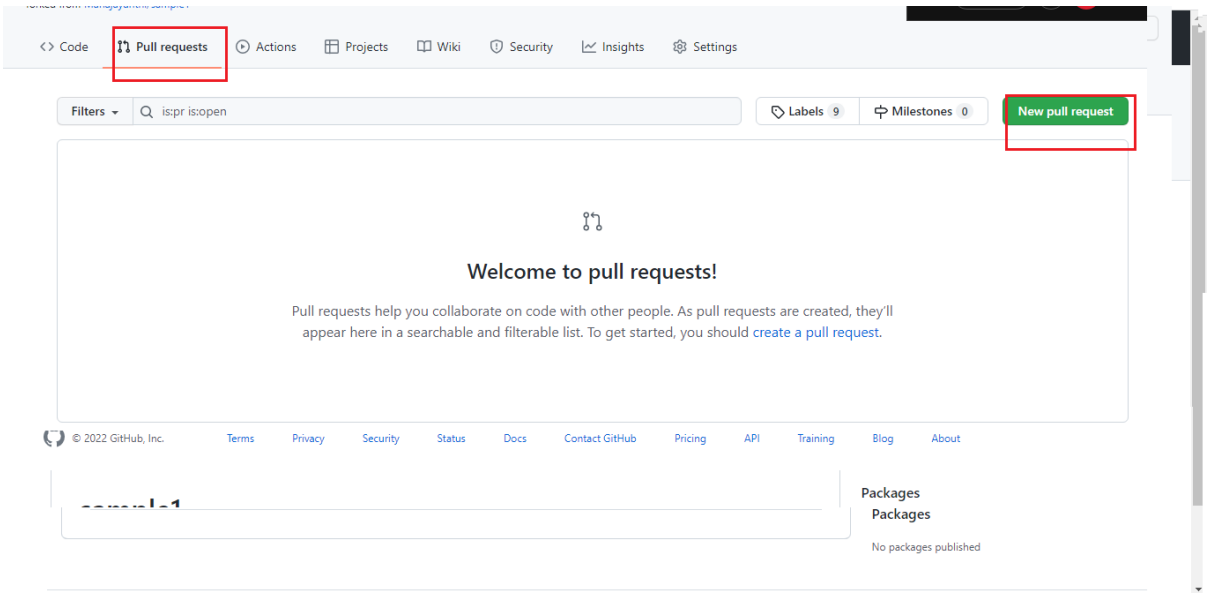
12. After committed next screen will open like this.

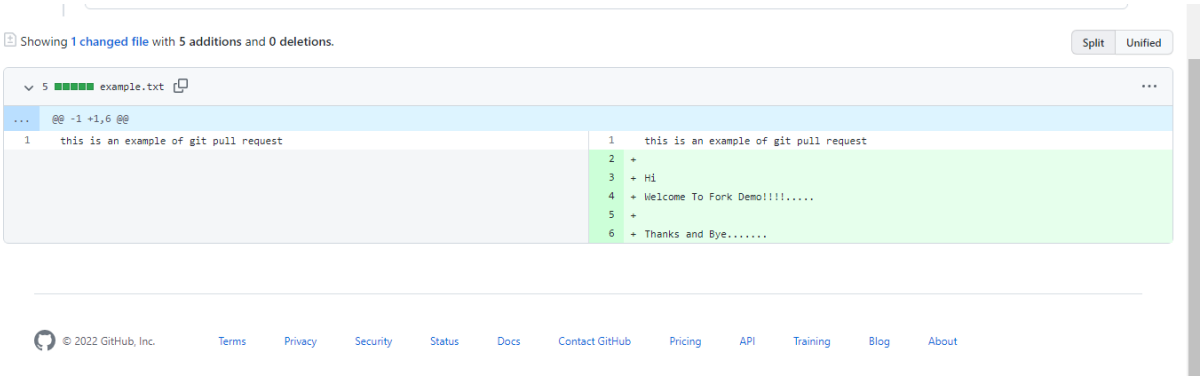


13. Open pull request tab. And click New pull request button.

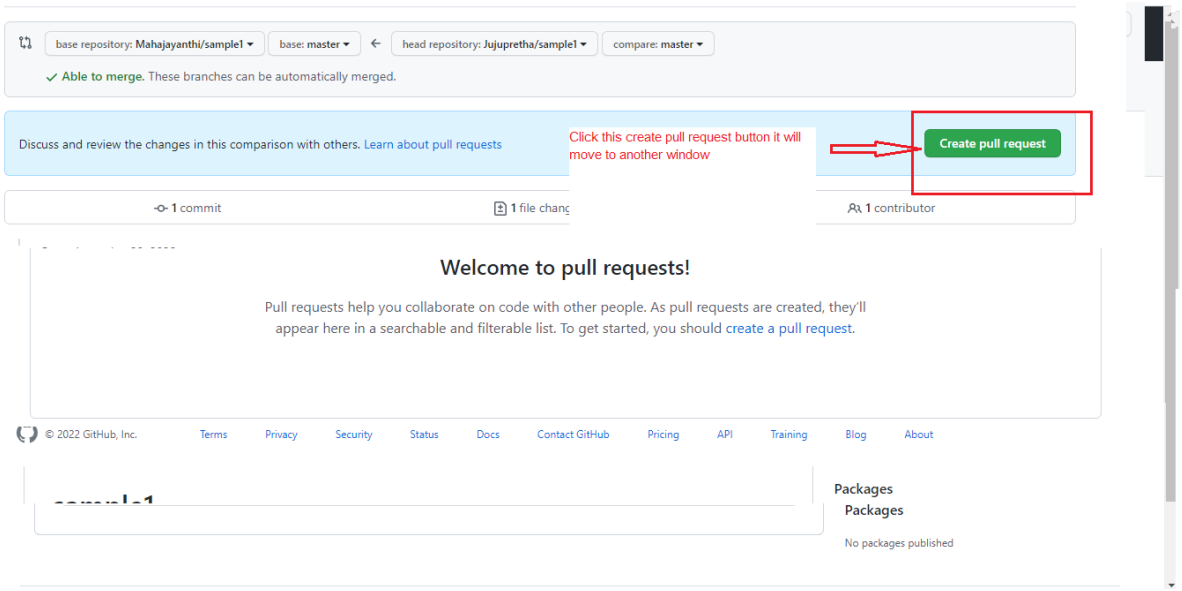


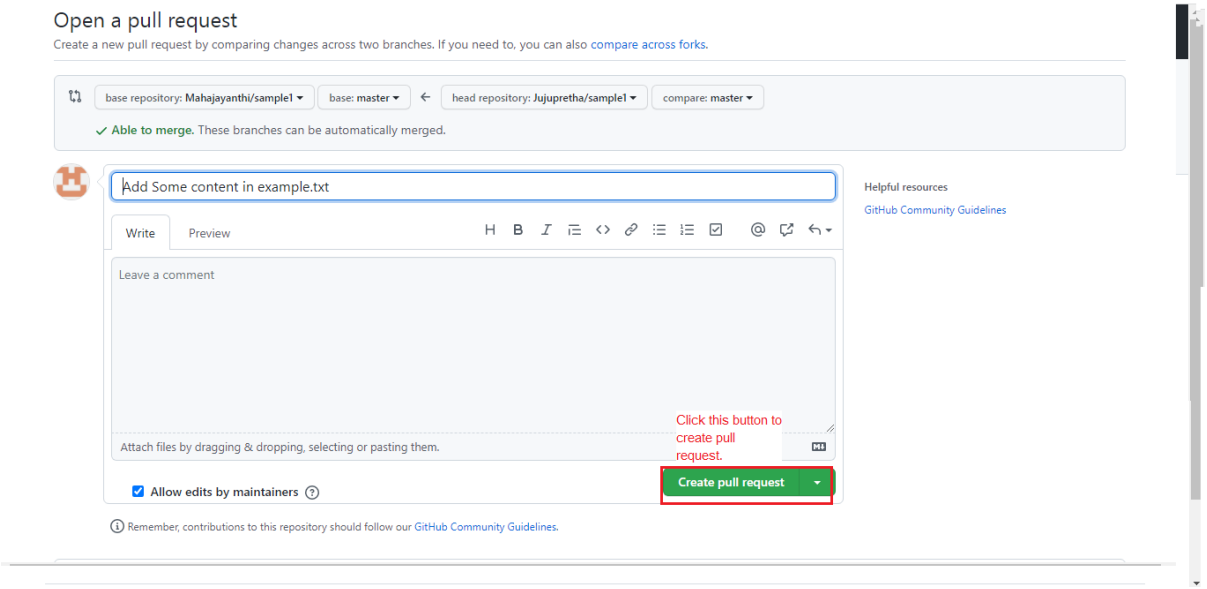
Changes will be shown below as shown in the image.



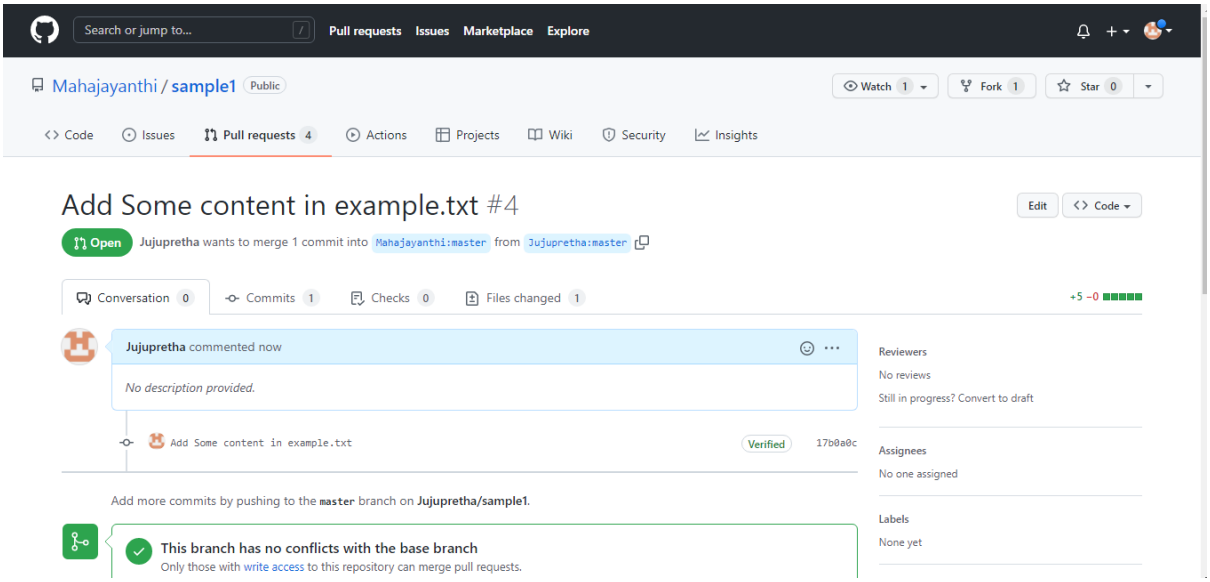


14. After this we need click the create pull request button:

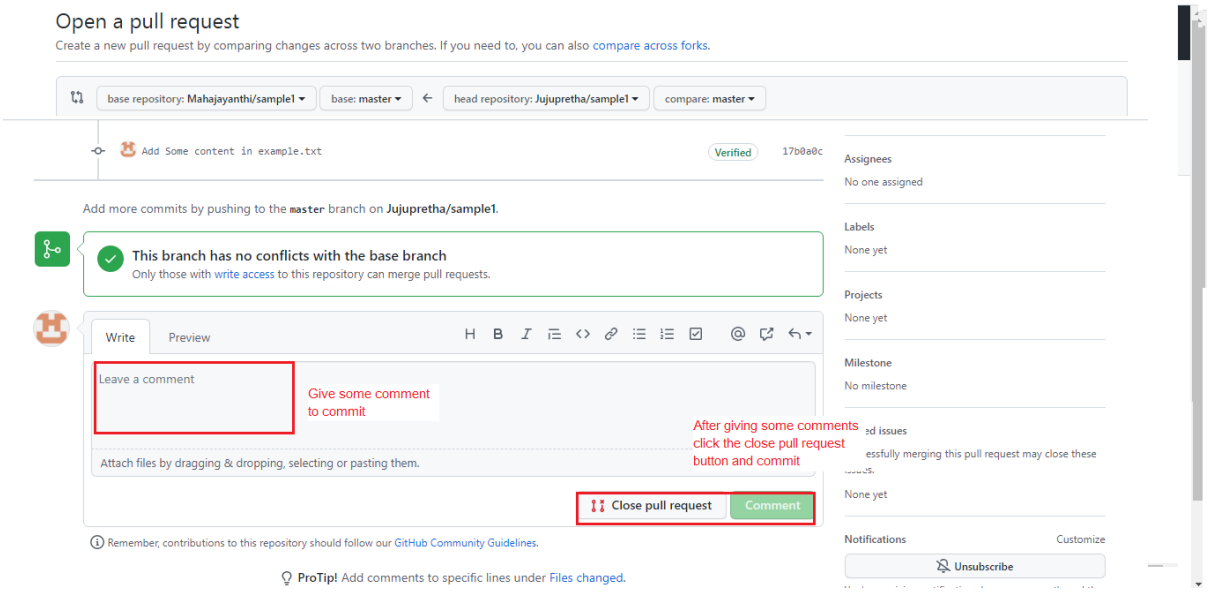




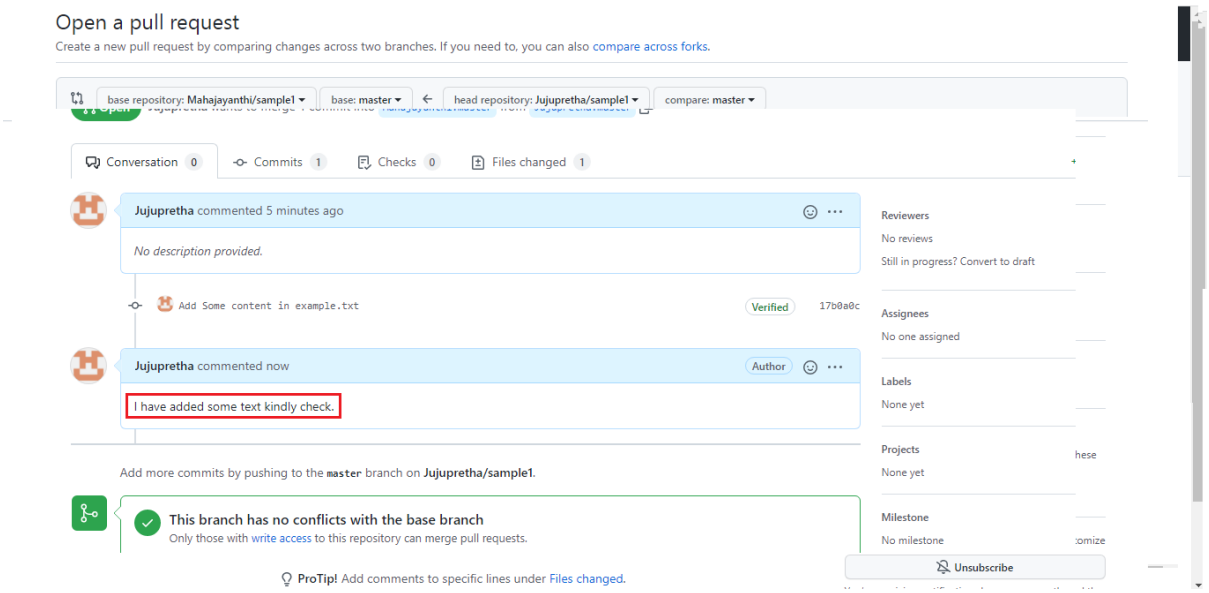
15. After clicking that button it will show like this:



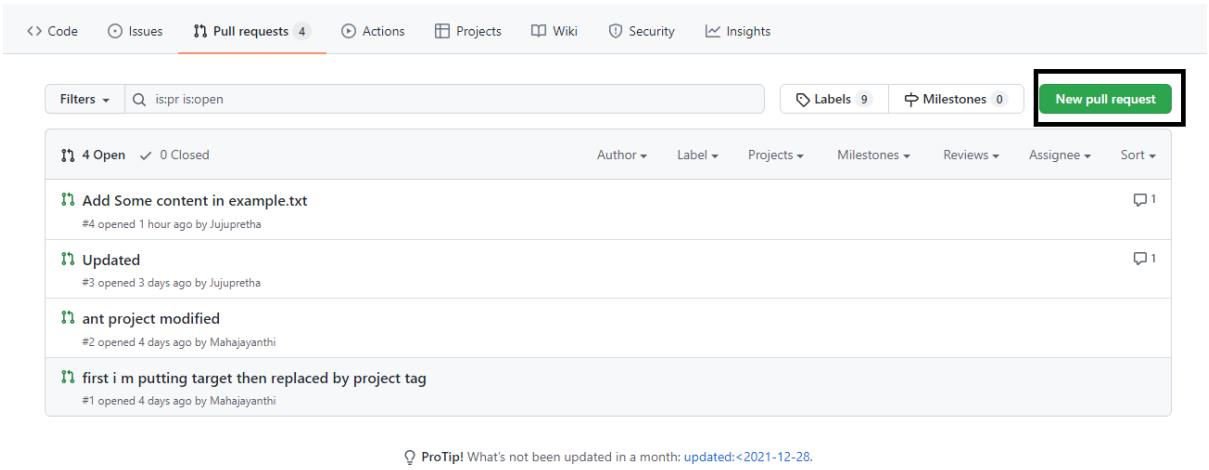
16. Give some commands:



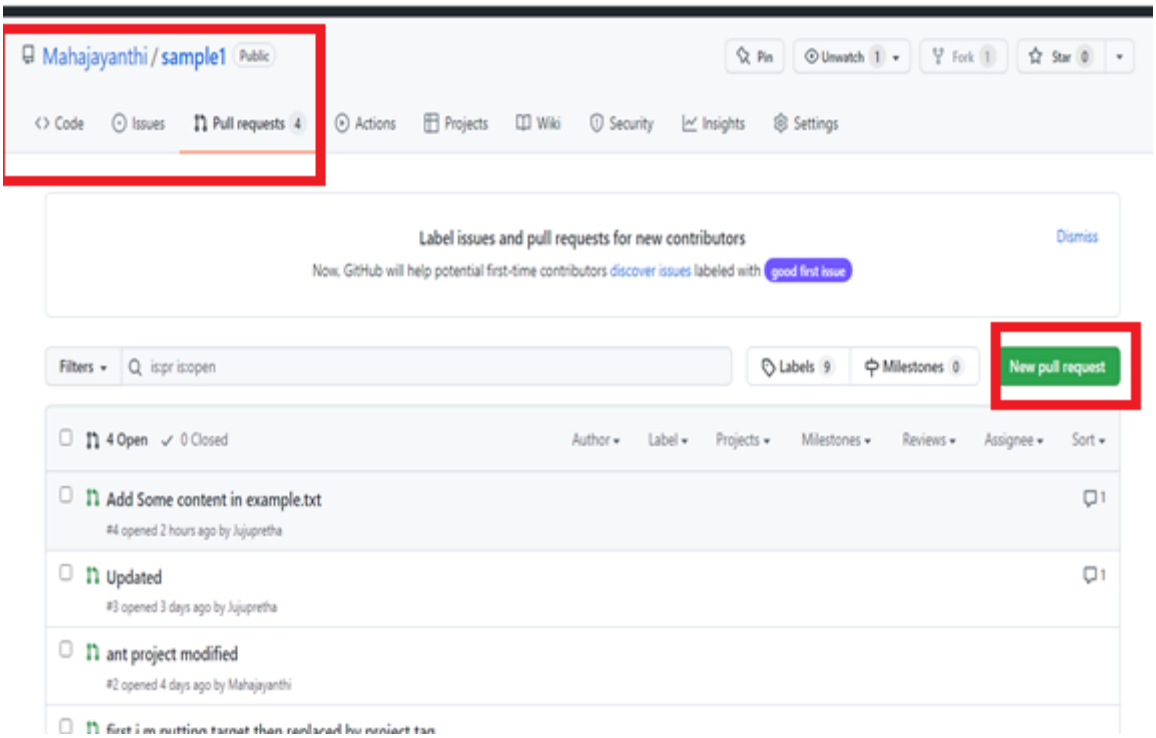
17. After comment given it will show :



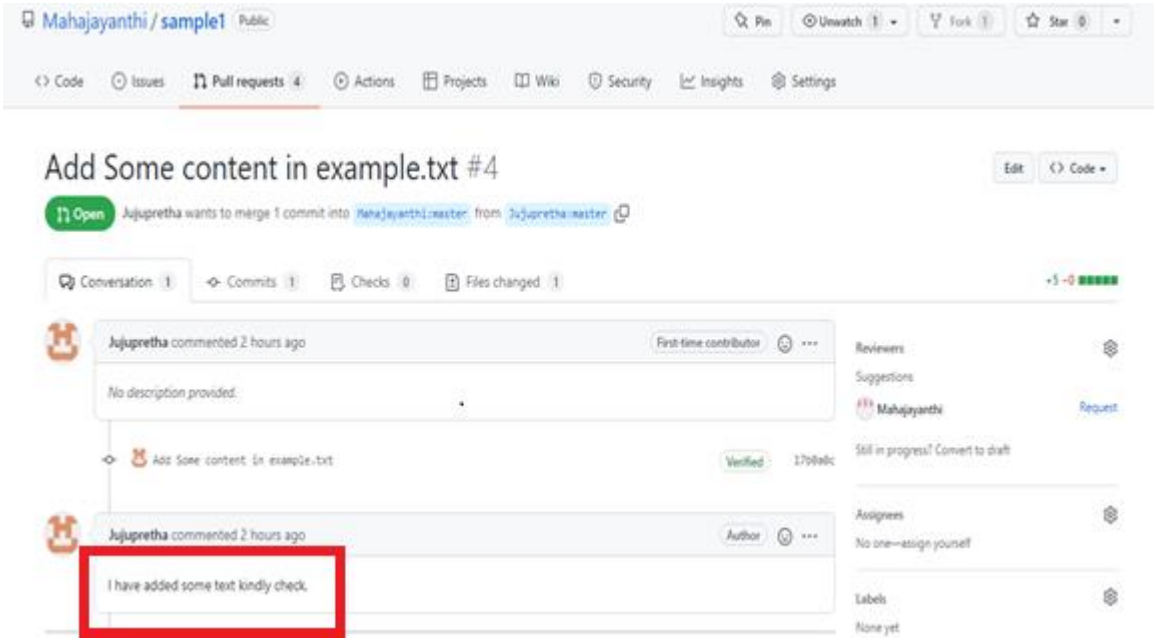
18. Go to Pull Request tab and click Create new Pull Request:



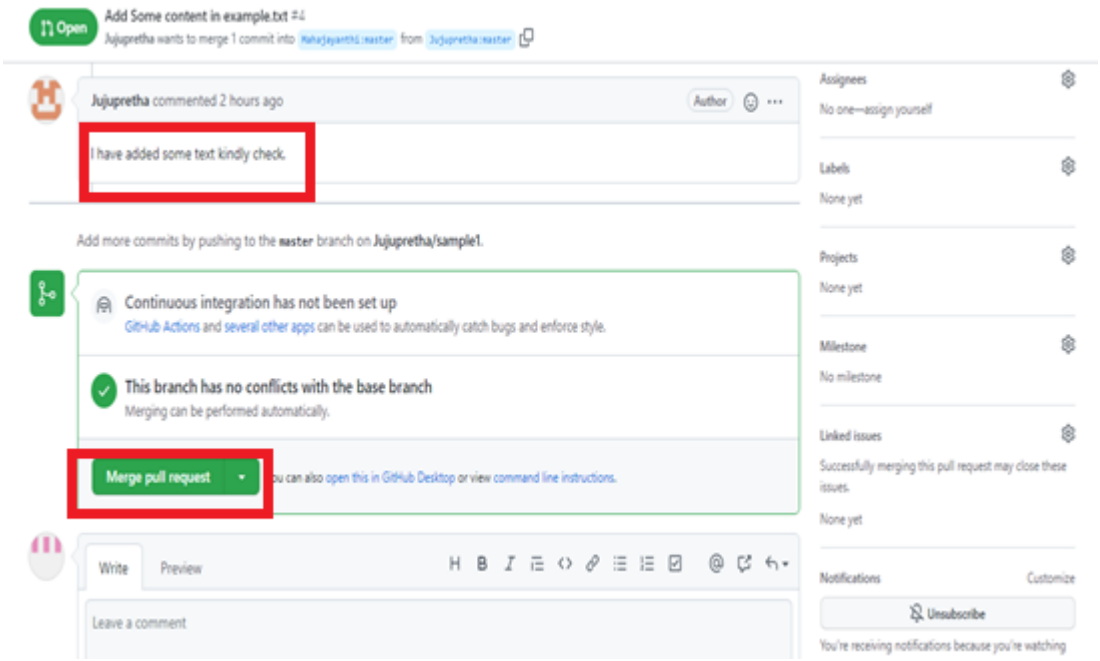
19. After All this process this pull request will send to Respective repo owner.



20. In that repo the content which we added will shown here.



21. Here we will have merge pull request by clicking that button it will added to our repo.



22. Text we have added will show here for review .
After reviewing we can add to our repo.