

Lab: Branching and Merging (Web UI)

Estimated time: 15 minutes

Objectives

After completing this lab, you will be able to:

1. Create a branch
2. Commit changes to a child branch
3. Open a pull request
4. Merge a pull request into the main branch

Prerequisites

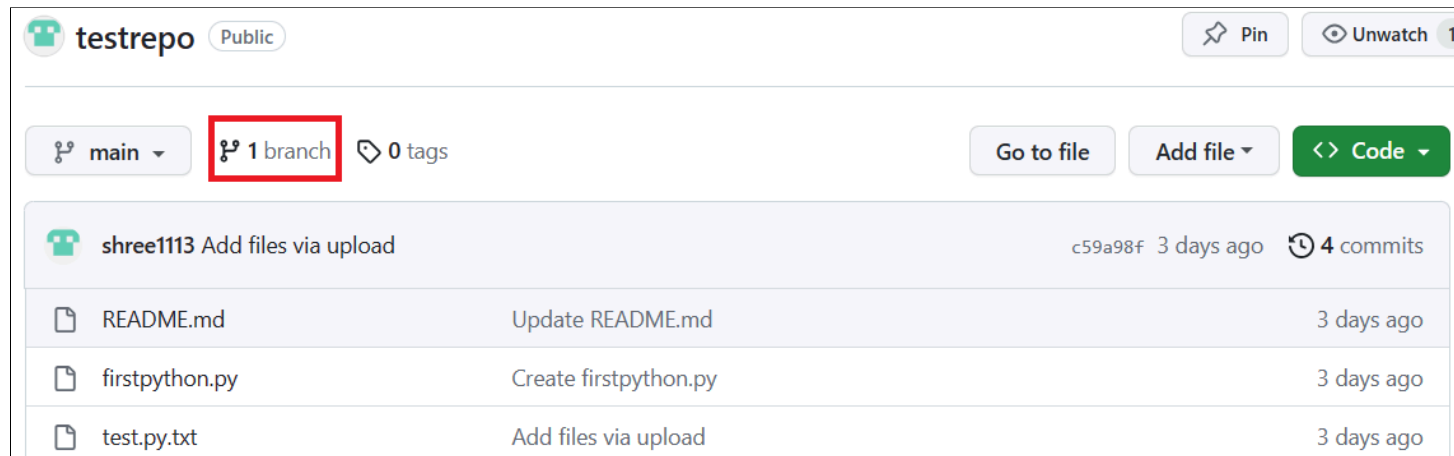
This hands-on lab requires you to have created a GitHub account with a repository in it, as covered in [Getting started with GitHub](#) lab.

NOTE: In the past the default branch in your GitHub repo used the name `master`. Effective Oct 1, 2020, all new GitHub repositories will use the more inclusive term `main` as the name of the default branch instead of `master`.

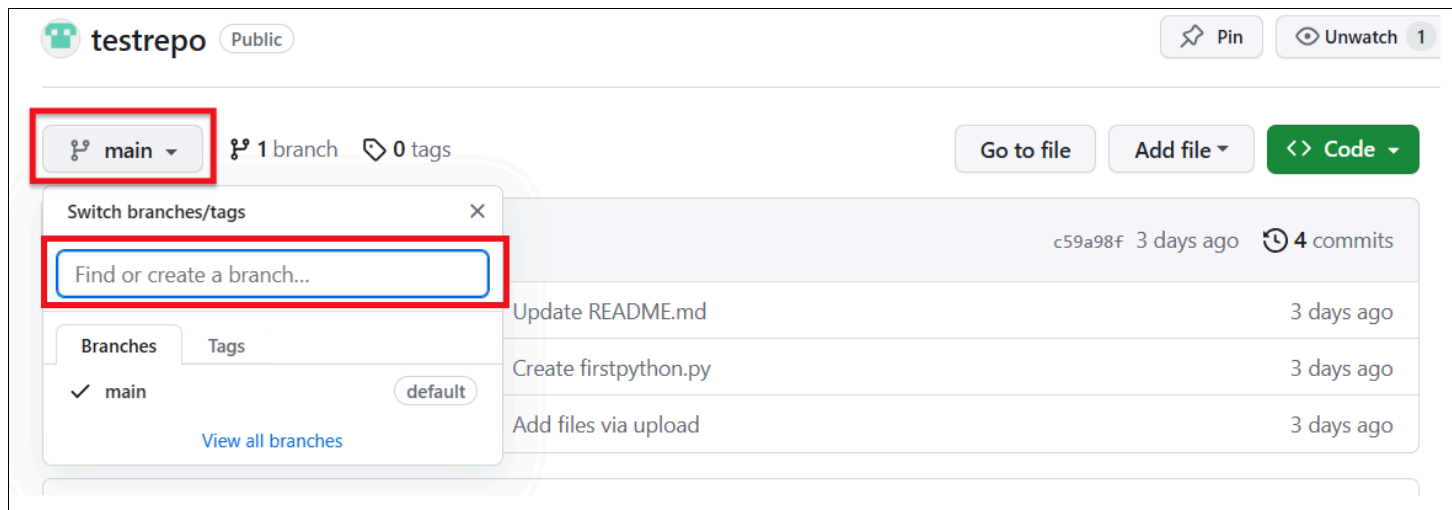
1. Create a branch

You can create or delete branches using your repository's GitHub web page. To add a branch to your repository, complete the following steps:

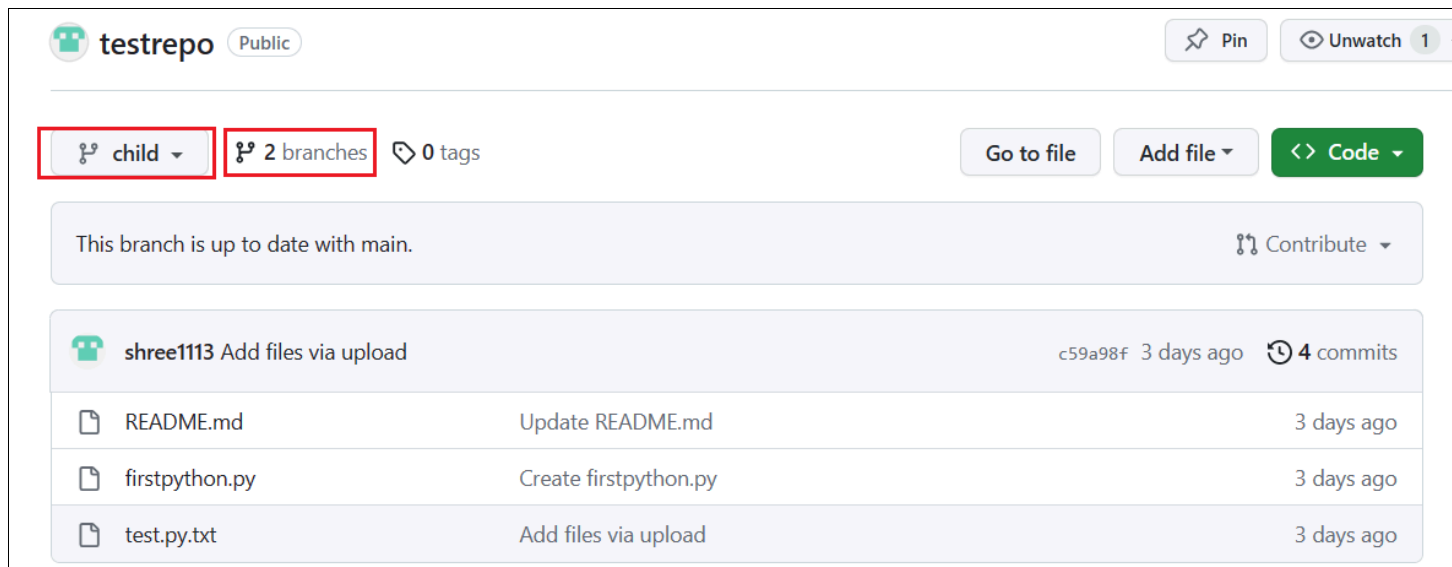
1. Go to your repository's main page. Note that when you created your repository, the one branch named **main** was created for you.



2. At the top of the file list, locate the **Branch** drop-down menu. (By default, the menu displays **Branch: main**.) Click the drop-down menu, type the name of the branch you want to create, and press Enter or return on your keyboard.



Your repository now has two branches: **Main** and **Child_Branch**. You can click the drop-down menu to see your branches.

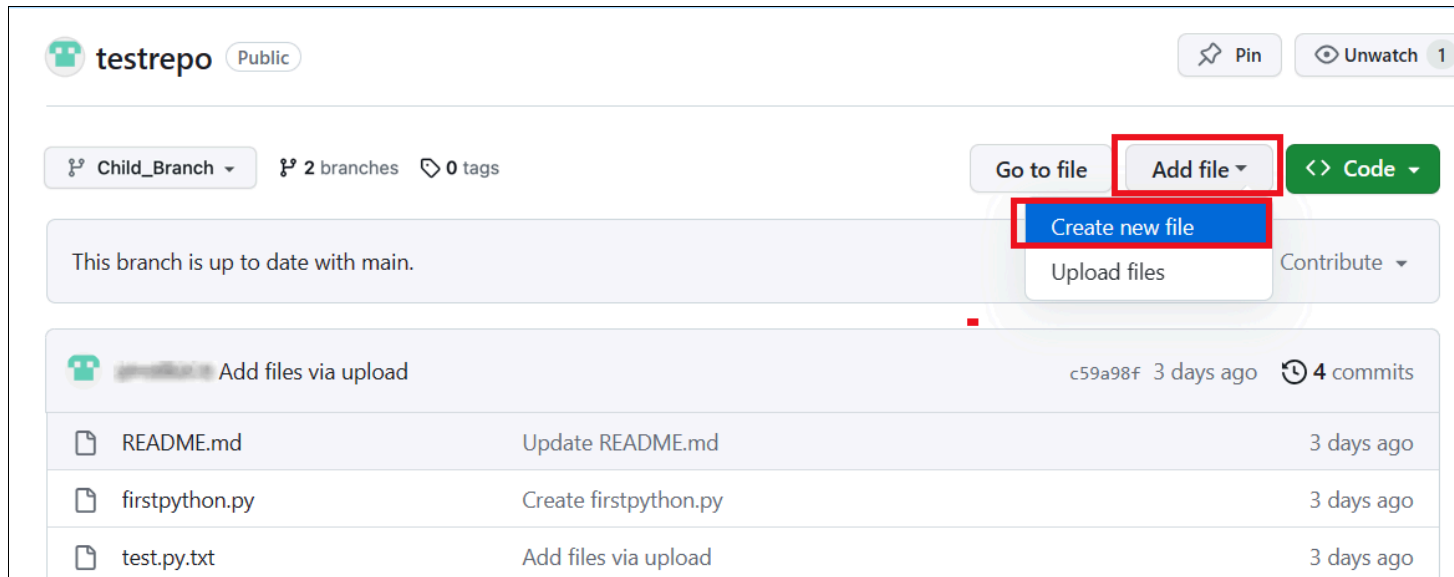


Any files that were in the **main** branch are reflected in the **Child_Branch**. Note that when you add or edit a file in Child_Branch, that change will not automatically reflect in the main branch

2. Add a file to a branch

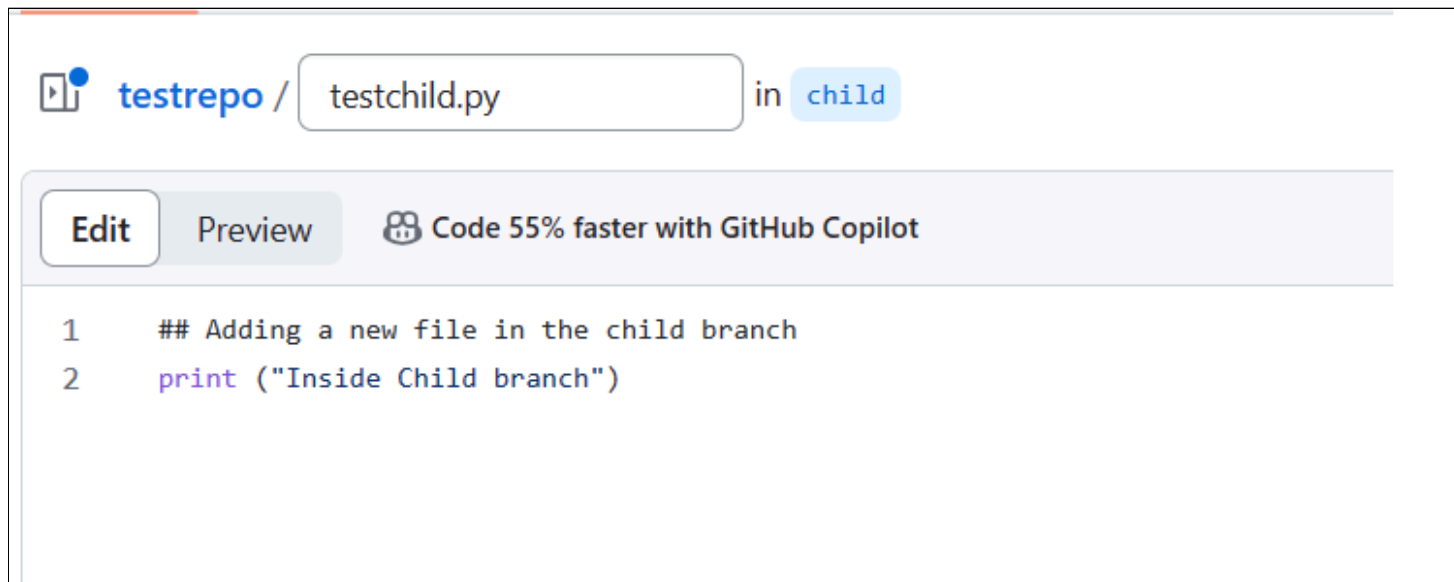
To add a file to your new branch, ensure that the name you gave the new branch (which in the case of the example showcased is **Child_Branch**) is displayed in the **Branch** drop-down menu and complete the following steps:

1. Click **Add file** > **Create new file** to create a file in the repository.



The screenshot shows the GitHub interface for a repository named 'testrepo' (Public). At the top, there are buttons for 'Pin' and 'Unwatch' (1). Below the repository name, there's a section for 'Child_Branch' with '2 branches' and '0 tags'. A message states 'This branch is up to date with main.' To the right, there are buttons for 'Go to file', 'Add file' (highlighted with a red box), and 'Code' (green button). The 'Add file' dropdown menu is open, showing 'Create new file' (highlighted with a blue box) and 'Upload files'. Below this, there's a section for 'Add files via upload' with a commit hash 'c59a98f' and '3 days ago' and '4 commits'. A table lists the files: 'README.md' (Update README.md, 3 days ago), 'firstpython.py' (Create firstpython.py, 3 days ago), and 'test.py.txt' (Add files via upload, 3 days ago).

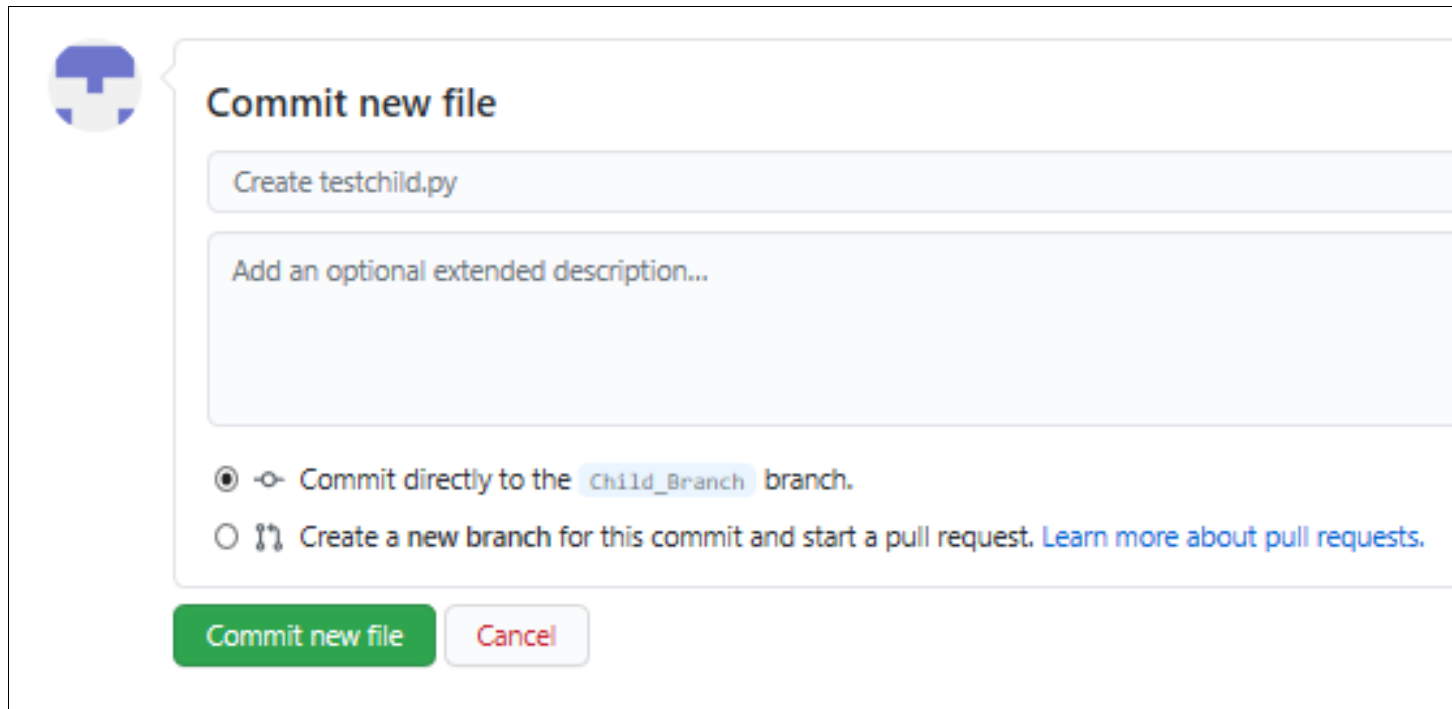
2. Type a name and extension for the file, for example, `testchild.py`, and add the following lines to the body of the new file:



The screenshot shows the GitHub file editor for 'testchild.py' in the 'child' branch. The breadcrumb navigation shows 'testrepo / testchild.py in child'. Below the breadcrumb, there are buttons for 'Edit' (active), 'Preview', and a promotion for 'Code 55% faster with GitHub Copilot'. The code editor contains two lines of Python code:

```
1  ## Adding a new file in the child branch
2  print ("Inside Child branch")
```

3. Scroll to the bottom of the page, add a description of the file you are about to add (note that the description is optional), and click **Commit**.

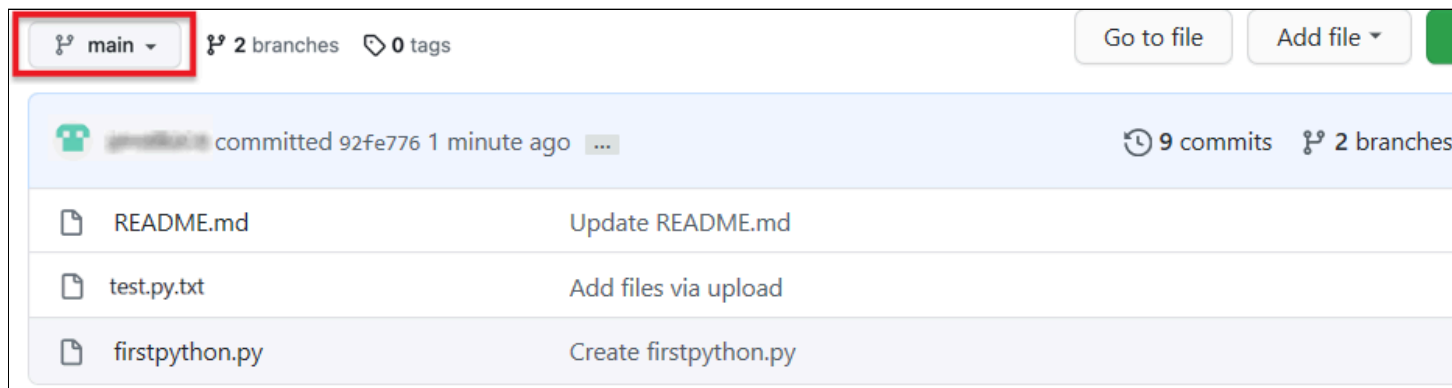


The image shows the 'Commit new file' dialog in GitHub. It features a header with a GitHub logo and the title 'Commit new file'. Below the title is a text input field containing 'Create testchild.py'. Underneath is a larger text area with the placeholder 'Add an optional extended description...'. At the bottom, there are two radio button options: 'Commit directly to the Child_Branch branch.' (which is selected) and 'Create a new branch for this commit and start a pull request. Learn more about pull requests.' Below the options are two buttons: 'Commit new file' (green) and 'Cancel' (white with a red border).

The file is added to your child branch.

3. Open a pull request

The file that you added to your child branch is not automatically added to the **main** branch. (You can check this by using the **Branch** drop-down menu to go to the **main** branch; note that there is no testchild.py file in the file list).

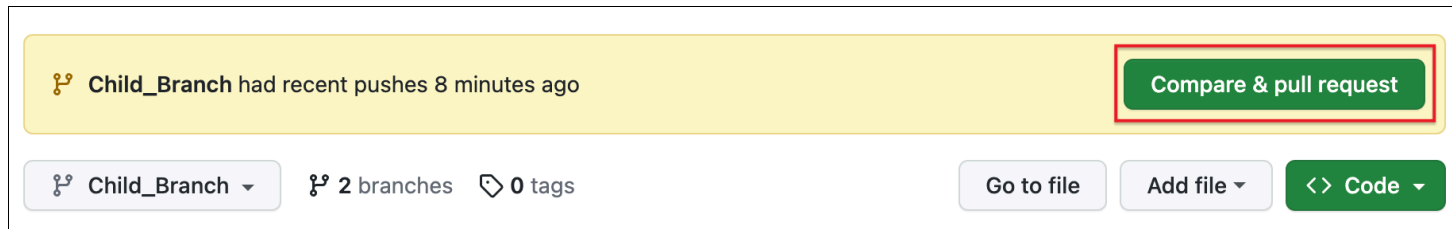


The image shows the GitHub repository view for the 'main' branch. At the top, there is a header bar with a 'main' branch selector (highlighted with a red box), '2 branches', and '0 tags'. To the right are buttons for 'Go to file' and 'Add file'. Below the header, a commit summary shows 'committed 92fe776 1 minute ago' with '9 commits' and '2 branches'. A table lists the files in the repository:

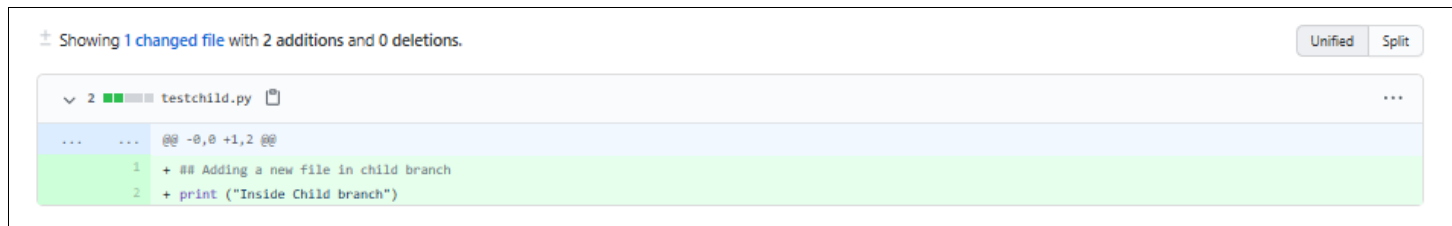
File	Commit Message	Size
README.md	Update README.md	7
test.py.txt	Add files via upload	5
firstpython.py	Create firstpython.py	7

You can also compare the two branches and open a *pull request*, which will enable you to merge the changes that you've made in the child branch – in this case, adding a new file – to the **main** branch.

1. In **Child_Branch**, click the **Compare & pull request** button.



2. Scroll to the bottom of the page and note that there is **1 changed file** listed and the changes are highlighted in green.







```
... @@ -0,0 +1,2 @@
1 + ## Adding a new file in child branch
2 + print ("Inside Child branch")
```

3. Scroll up and note that GitHub is comparing the **main** and **Child_Branch** branches and that there are no conflicts between the two. Optionally, you can add a comment to the pull request. Click **Create pull request**.

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: Child_Branch  **Able to merge.** These branches can be automatically merged.





Child branch


Write Preview

H B I  <>       

Add your description here...

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

Create pull request 

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

The pull request has been successfully created and is now ready to be merged by a repository administrator. For all the repositories that you create, you automatically have administrative rights.

4. Merge a pull request

To merge a pull request into a project, complete the following steps:

1. Click the **Pull requests** tab. A list of pending pull requests is displayed.

about:blank

6/10

Issues **Pull requests** 1 Actions Projects Wiki Security Insights Settings

Filters Labels 9 Milestones 0 [New pull request](#)



☐ 1 Open ✓ 1 Closed Author Label Projects Milestones Reviews Assignee Sort





☐ **Create testchild.py**
#2 opened 2 minutes ago by [tuphrevishnu](#)


ProTip! Exclude everything labeled `bug` with `-label:bug`.

2. Click the pull request that you want to merge into the main project. Review the changes, click **Merge pull request** to accept the pull request and merge the updates. (You can optionally add a comment.)


Child branch #1




 Open Malika-s wants to merge 3 commits into `master` from `Child_Branch` 

 Conversation 0  Commits 3  Checks 0  Files changed 1



 Malika-s commented 2 minutes ago Owner 😊 ...


Want to change in the master branch.


 Malika-s added 3 commits 25 minutes ago

-  Create testchild Verified 9767921
-  Delete testchild Verified 48b4479
-  Create testchild.py Verified eb5ced2

Add more commits by pushing to the `Child_Branch` branch on Malika-s/testrepo.



  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.



Merge pull request  You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

3. When you click **Merge pull request**, a **Confirm merge** button is displayed. Click that button to complete the merge.


Child branch #1







 Open Malika-s wants to merge 3 commits into `master` from `Child_Branch` 

 Conversation 0  Commits 3  Checks 0  Files changed 1


 Malika-s commented 4 minutes ago Owner  ...

Want to change in the master branch.

 Malika-s added 3 commits 27 minutes ago

-   Create testchild Verified 9767921
-   Delete testchild Verified 48b4479
-   Create testchild.py Verified eb5ced2


Add more commits by pushing to the `Child_Branch` branch on Malika-s/testrepo.

 Merge pull request #1 from Malika-s/Child_Branch

Child branch

Confirm merge Cancel

The pull request has now been merged successfully. Note that you can delete the child branch because your changes have been incorporated into the **main** branch.

 **Pull request successfully merged and closed** Delete branch

You're all set—the `Child_Branch` branch can be safely deleted.

Check the list of files in the **main** branch to confirm that it now includes the file that you added in the pull request.

main ▾



2 branches

0 tags

Go to file

Add file ▾





Code ▾

  committed 7a7c576 3 minutes ago ...

8 commits

2 branches

0 tags

 README.md	Update README.md	3 hours ago
 test.py.txt	Add files via upload	1 hour ago
 firstpython.py	Create firstpython.py	3 hours ago
 testchild.py	Create testchild.py	21 minutes ago

Summary

Congratulations! You've now learned how to create a branch, edit and commit changes in that branch, open a pull request, and merge the pull request into your main project. We encourage you to continue to experiment with branches and pull requests to become more familiar with the concepts and processes.

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Skills Network