

Hands-on Lab: Creating and merging branches in your GitHub repo

Effort: 20 min



IBM Developer
SKILLS NETWORK

Objectives

After completing this lab you will be able to:

1. Create a branch
2. Commit changes in the child branch
3. Open a pull request (PR)
4. Merge the PR into the master branch

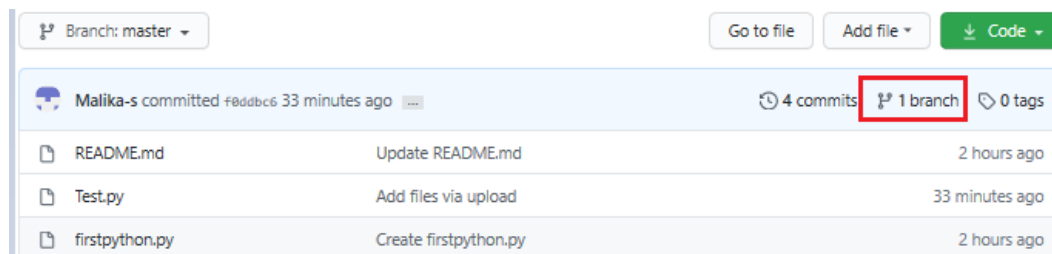
Pre-requisites

This hands-on lab requires you to have already created a GitHub account, and added a project to it, as illustrated in the [previous lab](#)

Exercise 1: Creating a branch

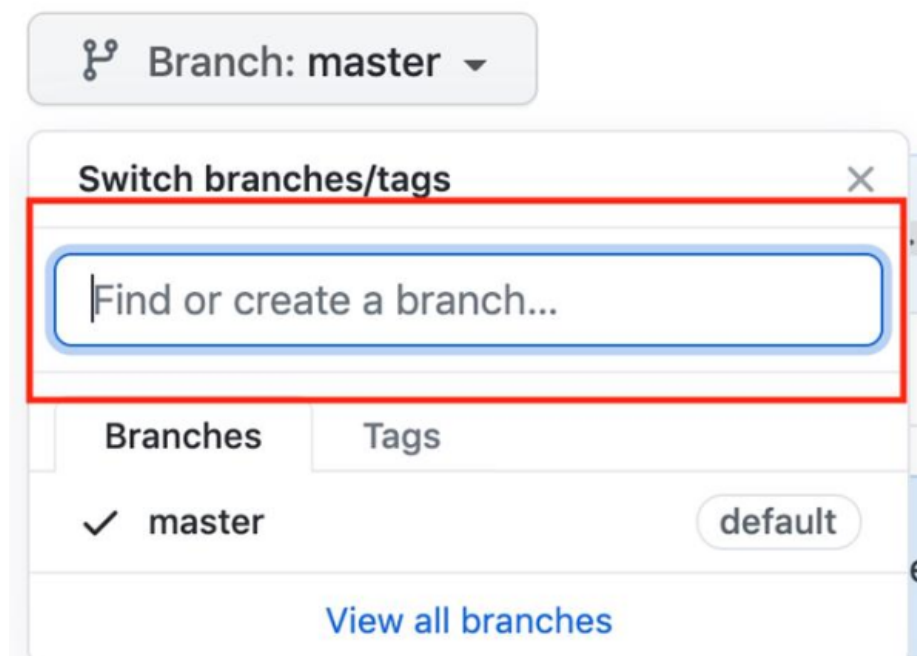
You can create or delete branches directly on GitHub.

Step 1: Currently, there is one branch as shown below:



Step 2: On GitHub, navigate to the main page of the repository.

Step 3: Click the Branch selector menu. Enter the name of the branch you want to create and press Enter.



Step 4: Observe that your repository has two branches Master and Child_Branch(check using arrow).

The screenshot shows the GitHub interface for a repository. At the top, a dropdown menu shows 'Branch: Child_Branch'. Below it, a message states 'This branch is even with master.' To the right are buttons for 'Go to file', 'Add file', and 'Code'. Further down, a commit by 'Malika-s' is shown, with statistics: '4 commits', '2 branches' (highlighted with a red box), and '0 tags'. A table lists recent file changes: 'README.md' (Update README.md, 2 hours ago), 'Test.py' (Add files via upload, 35 minutes ago), and 'firstpython.py' (Create firstpython.py, 2 hours ago).

Whatever, is in the master file is copied to the child branch. But when we add a file or edit any file in child branch that will not reflect in the 'Master' branch.

Exercise 2: Adding a file in the Child Branch

Step 1: Click Add file and select Create New file to create a file in the repository.

This screenshot shows the same GitHub repository page as before, but the 'Add file' button has been clicked, opening a dropdown menu. The menu options are 'Create new file' (highlighted with a red box) and 'Upload files'. The repository statistics now show '7 commits' and '2 branches'. The file change table is updated with 'README.md' (3 hours ago), 'Test.py' (1 hour ago), and 'firstpython.py' (2 hours ago).

Step 2: Provide the file name and the extension of the file. For example, testchild.py and add the lines.

The screenshot shows the 'Create new file' dialog in GitHub. The file name 'testchild.py' is entered in the input field. Below the input field, there are two tabs: 'Edit new file' (selected) and 'Preview'. The 'Edit new file' tab shows a code editor with the following content:

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

Step 3: Scroll down the page after adding the text. Add a description of the file (optional) and click Commit new file.

The screenshot shows the 'Commit new file' dialog in GitHub. The file name 'testchild.py' is entered in the input field. Below it, there is a text area for an optional extended description. At the bottom, there are two radio buttons: the first is selected and labeled 'Commit directly to the Child_Branch branch.', and the second is labeled 'Create a new branch for this commit and start a pull request. Learn more about pull requests.' At the very bottom are two buttons: 'Commit new file' (green) and 'Cancel' (white).

The file has added to the child branch.

Exercise 3: Open a Pull Request

You can check the master branch now there is no testchild.py file by selecting the Branch selector menu.

Branch: master

Go to file

Add file

Malika-s committed 92fe776 1 minute ago

9 commits2 branches

README.md	Update README.md	7
Test.py	Add files via upload	5
firstpython.py	Create firstpython.py	7

Or you can also compare the file as shown below with the option given Compare and pull request.

Child_Branch had recent pushes less than a minute ago

Compare & pull request

Branch: Child_Branch

Go to file

Add file

Code

This branch is 3 commits ahead of master.

Pull requestCompare

Malika-s committed eb5ced2 3 minutes ago

7 commits2 branches0 tags

README.md	Update README.md	3 hours ago
Test.py	Add files via upload	1 hour ago
firstpython.py	Create firstpython.py	2 hours ago
testchild.py	Create testchild.py	3 minutes ago

Step 1: Scroll down the page, you will get 1 file changed

Showing 1 changed file with 2 additions and 0 deletions.

UnifiedSplit

testchild.py

@@ -0,0 +1,2 @@

1 + ## Adding a new file in child branch

2 + print ("Inside Child branch")

Step 2: Scroll up and create a pull request using the option Create Pull request. In the highlight, you can see the arrow which means that you are comparing and creating a pull request. Add the comments (optional) to create a 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: master ← compare: Child_Branch

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

Child branch

Write Preview

H B I

Want to change in the master branch|

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

Create pull request

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

Exercise 4: Merge the Pull Request

To accept the pull request, click the Pull Requests tab to see a summary of pending pull requests. If you are happy with the changes, click Merge Pull request to accept the pull request and perform the merge. You can add a comment if you want.

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

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.

- Once you click Merge Pull request, you will see a button Confirm 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

Want to change in the master branch.

Malika-s added 3 commits 27 minutes ago

Create testchild

Verified9767921

Delete testchild

Verified48b4479

Create testchild.py

Verifiedeb5ced2

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

Malika-s committed 7a7c576 3 minutes ago

8 commits2 branches0 tags

README.md

Update README.md

3 hours ago

Test.py

Add files via upload

1 hour ago

firstpython.py

Create firstpython.py

3 hours ago

testchild.py

Create testchild.py

21 minutes ago

Your request has now merged successfully.

Pull request successfully merged and closed

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

Delete branch

Now, the child branch has completely merged with the Master branch. You can check the Master branch is having the testchild.py file.

Branch: master

Go to file

Add file

Code

Malika-s committed 7a7c576 3 minutes ago

8 commits2 branches0 tags

README.md

Update README.md

3 hours ago

Test.py

Add files via upload

1 hour ago

firstpython.py

Create firstpython.py

3 hours ago

testchild.py

Create testchild.py

21 minutes ago

Summary

In this document, you have learned how to create a branch, edit and commit the changes, open a pull request and merge the request.

Author(s)

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Other Contributor(s)

Rav Ahuja

Changelog

Date	Version	Changed by	Change Description
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https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBM-DS0105EN-Coursera/labs/GitHub/GitHub2_Branch_Merge.md.html5/6

Date	Version	Changed by	Change Description
2020-07-16	0.4	Malika Singla	Spell check, steps added
2020-07-14	0.3	Rav Ahuja	Changed logo, updated title, intro, objectives, added Effort, Authors and Changelog
2020-07-13	0.2	Malika Singla	Added to GitLab and made some formatting changes, added objectives, etc.
2020-06-30	0.1	Malika Singla	Drafted initial version