

Report

5 марта 2024 г. 11:50

```
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git merge testing
Merge made by the 'ort' strategy.
 HW1/test_revert.txt | 1 +
 1 file changed, 1 insertion(+)
```

The repo status of repo after merging.

```
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git status
On branch HW1
Your branch is ahead of 'origin/HW1' by 2 commits.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean
```

And visualization with a graph:

```
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git log --graph --oneline --decorate --all
* 1e28b6b (HEAD -> HW1) Merge branch 'testing' into HW1 Merge the difference of test_revert.txt file in the testing branch and hw1.txt in the HW1 branch
|
| * e8de39c (origin/testing, testing) Step 8, changed this file
| * | 92c9803 (origin/HW1) changed the initial file
|/
* 5dcfd40 for testing revert and merge
* 5666c71 for testing revert
* d1329bc initial file
* 27feb53 (origin/main, origin/HEAD, main) Create README.md
```

After reverting:

```
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git log --graph --oneline --decorate --all
* f43bd2d (HEAD -> HW1) Revert "Merge branch 'testing' into HW1"
* 1e28b6b (origin/HW1) Merge branch 'testing' into HW1 Merge the difference of test_revert.txt file in the testing branch and hw1.txt in the HW1 branch
|
| * e8de39c (origin/testing, testing) Step 8, changed this file
| * | 92c9803 changed the initial file
|/
* 5dcfd40 for testing revert and merge
* 5666c71 for testing revert
* d1329bc initial file
* 27feb53 (origin/main, origin/HEAD, main) Create README.md
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```
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git log --graph --oneline --decorate --all
* f43bd2d (HW1) Revert "Merge branch 'testing' into HW1"
* 1e28b6b (origin/HW1) Merge branch 'testing' into HW1 Merge the difference of test_revert.txt file in the testing branch and hw1.txt in the HW1 branch
|
| * e8de39c (HEAD -> testing, origin/testing) Step 8, changed this file
| * | 92c9803 changed the initial file
|/
* 5dcfd40 for testing revert and merge
* 5666c71 for testing revert
* d1329bc initial file
* 27feb53 (origin/main, origin/HEAD, main) Create README.md
```

The git graph after pushing changes:

```
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git log --graph --oneline --decorate --all
* 8795602 (HEAD -> testing, origin/testing) Correct a missing file
|
| * f43bd2d (HW1) Revert "Merge branch 'testing' into HW1"
| * 1e28b6b (origin/HW1) Merge branch 'testing' into HW1 Merge the difference of test_revert.txt file in the testing branch and hw1.txt in the HW1 branch
|/
|
| * e8de39c Step 8, changed this file
| * | 92c9803 changed the initial file
|/
* 5dcfd40 for testing revert and merge
* 5666c71 for testing revert
* d1329bc initial file
* 27feb53 (origin/main, origin/HEAD, main) Create README.md
```

After merging I have this status:

```
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git merge testing
Merge made by the 'ort' strategy.
 HW1/test_revert_merge.txt | 1 +
 1 file changed, 1 insertion(+)
```

```
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git log --graph --oneline --decorate --all
* e1e58c2 (HEAD -> HW1) Merge branch 'testing' into HW1 After changing a file I merge these branches again
| \
| * 8795602 (origin/testing, testing) Correct a missing file
| * f43bd2d Revert "Merge branch 'testing' into HW1"
| * 1e28b6b (origin/HW1) Merge branch 'testing' into HW1 Merge the difference of test_revert.txt file in the testing branch and hw1.txt in the HW1 branch
| \
| * e8de39c Step 8, changed this file
| * 92c9803 changed the initial file
| /
* 5dcfd40 for testing revert and merge
* 5666c71 for testing revert
* d1329bc initial file
* 276b52 Create test_revert_merge.txt
```

However there isn't any changes in HW1/test_revert.txt file in the HW1 branch.

```
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git status
On branch HW1
Your branch is up to date with 'origin/HW1'.

nothing to commit, working tree clean
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git status
On branch HW1
Your branch is up to date with 'origin/HW1'.

nothing to commit, working tree clean
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ cat HW1/*
This is an initial file.
This is a change.
This is a file for testing revert.
This is a file for testing revert and merge.
This is a change.
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git checkout testing
Switched to branch 'testing'
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ cat HW1/*
This is an initial file.
This is a file for testing revert.
This is a change.
This is a file for testing revert and merge.
This is a change.
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ ls HW1/*
HW1/hw1.txt  HW1/test_revert.txt  HW1/test_revert_merge.txt
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$
```

The explanation can be that a changed variant of this file was merged with HW1 branch before reverting that is why git don't do it again, but new modified file was merged correctly.

To solve this problem I found a tutorial:

In such a situation, you would want to first revert the previous revert, which would make the history look like this:

```

--o--o--o--o--H--X--X--W--X--Y
      |
      v
--A--B-----C---D

```

where Y is the revert of W. Such a "revert of the revert" can be done with:

```
$ git revert W
```

and tried to imply this approach:

```
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git revert 1e28b6b
error: commit 1e28b6bb3243cc2243097b356c5be62ff02572ef is a merge but no -m option was given.
fatal: revert failed
```

I think that I need to add -m 1, but I am not sure that is why I continued my investigation.

I tried this code:

```
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git revert f43bd2d
[HW1 8ce7d3d] Revert "Revert "Merge branch 'testing' into HW1""
1 file changed, 1 insertion(+)
```

That is why we need to use the following workaround:
And got:

```
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git log --graph --oneline --decorate --all
* 8ce7d3d (HEAD -> HW1) Revert "Revert "Merge branch 'testing' into HW1""
*   ele50c2 (origin/HW1) Merge branch 'testing' into HW1 After changing a file I merge these branches again
| \
| * 8795602 (origin/testing, testing) Correct a missing file
| | f43bd2d Revert "Merge branch 'testing' into HW1"
| | 1e28b6b Merge branch 'testing' into HW1 Merge the difference of test_revert.txt file in the texting branch and hw1.t
| | xt in the HW! branch
| |
| | * e8de39c Step 8, changed this file
| | * | 92c9803 changed the initial file
| | /
| * 5dcfd40 for testing revert and merge
| * 5666c71 for testing revert
| * d1329bc initial file
* 27feb53 (origin/main, origin/HEAD, main) Create README.md
```

To be honest, I don't see difference after this command

But it works!!!

```
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ git status
On branch HW1
Your branch is ahead of 'origin/HW1' by 1 commit.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean
(base) matt@DESKTOP-8KCEA2N:~/git/SciPyCourse/ITMO_ScientificPython_2024$ cat HW1/*
This is an initial file.
This is a change.
This is a file for testing revert.
This is a change.
This is a file for testing revert and merge.
This is a change.
```