

Initial steps

Create a repository with an empty README.md file. In GitHub, I have updated this file.

git clone https://github.com/rittata/ITMO_ScientificPython_2024.git

Connecting over HTTPS

cd ./ITMO_ScientificPython_2024

git branch HW1

git checkout HW1

mkdir HW1

cd HW1

touch hw1.txt test_revert.txt test_revert_merge.txt

Setting contents of the files using nano

git add .

git commit -m "Create HW1 directory with three files"

git push -u origin HW1

First file changes and creating the 'testing' brunch

git branch testing

Changing hw1.txt using nano

git add .

git commit -m "Change hw1.txt in HW1"

git push

git checkout testing

Changing test_revert.txt using nano

git add .

git commit -m "Change test_revert.txt in testing"

git push -u origin testing

First merge commit

git checkout HW1

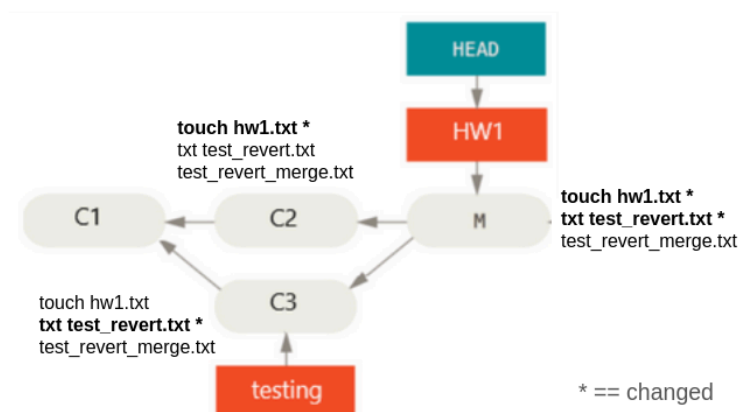
git merge testing

git add .

git commit -m "Merge testing into HW1"

git push

Repo state at this point:



Reverting the merge commit and changing test_revert_merge.txt

```
git checkout HW1
# Getting hash for merge operation using git log
git revert -m 1 577a019    # ([HW1 6aefb94] Revert "Merge branch 'testing' into HW1)
git checkout testing
# Changing test_revert_merge.txt using nano
git add .
git commit -m "Change test_revert_merge.txt in testing branch"
git push
```

Trying to do the second merge

```
git checkout HW1
git merge testing
```

We wanted to combine the “testing” branch with “HW1”, so all three files will be updated. Instead, the changes were saved only in test_revert_merge.txt and hw1.txt.

When we reverted the first merge commit, the changes from test_revert_merge.txt came back, but the changes to test_revert.txt were not restored, since that file was not changed just before the merge. By reverting the revert commit, we can restore the files as if the merge never happened (all three files are changed).

Successful merge commit

```
# Getting hash for revert operation using git log
git revert 6aefb94    #[HW1 15af4f8] Revert "Revert "Merge branch 'testing' into HW1""
git merge testing
git add .
git commit -m "Successfully merging HW1 and testing"
git push
```

Deleting the “testing” branch and adding report file

```
git branch -d testing
git commit -m "Delete branch testing"
git push
# Copying report file into local directory of the repository
git add git_report.pdf
git commit -m "Report added"
git push
```