

# Git Exercises

# 4. Reverting (reset) Changes 1/2

4.1 Continue on the project from previous exercises. Add a file called revertme.txt and commit it

4.2 Find the name SHA (HASH) of the commit you want reset to using "git log" (e.g. the one before the latest)

4.3 Revert the changes to that file locally using "git reset --soft <HASH> "

4.4 Commit the changes again and test "git reset --hard <HASH>"

Note: Resetting manipulates git history which is usually not wanted. It can be sometimes used before pushing to remote repository.

## 4. Reverting (revert) Changes 2/2

4.1 Continue on the project from previous exercises. Add a file called revertme.txt, commit and push changes to the dev branch

4.2 Revert the changes to that file locally using "git revert"

4.3 Push the reverted changes to the remote

Note: revert is the proper way of fixing mistakes, especially after they have been pushed to remote.

# 5. Merging Branches

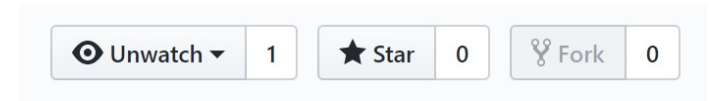
5.0 Merge your dev branch into main on GitHub

5.1 Checkout main branch on your local machine and pull the changes

# 6. Pull request 1/2

6.1 Go to your pair's repository in GitHub

6.2 Find the project from GitHub and fork it pressing the small icon.



6.3 After forking, go to the forked repository (under your own projects) and copy the git repository url

6.4 Navigate to a directory in git bash where you want to download the project (don't choose an existing folder under version control)

6.5 Use **git clone** to create a local copy of your fork. Remember to **cd copiedprojectname**

6.6 Open the project in a text editor (type "code .") and make any change to the project or README.md file

6.7 Add and commit your changes and do **git push origin yourbranchname** (According to the best practices you do this in a branch other than master. As a responsible coder, you can do so 😊)

# 6. Pull request 2/2

6.8 Go to github and make sure your changes show up in your fork.

6.9 Create a pull request in GitHub to your pair's project.

# 7. SSH connection

7.0 Remove your GitHub login credentials from your local machine. Git stores login credentials the following way:

- Linux: ~/. **git-credentials** .
- Window: Search for Credential manager -> Windows Credentials -> git:https://github.com

7.1 Create SSH keypair from GitHub

7.2 Find out how and connect your local machine to GitHub using the SSH credentials

7.3 Push some changes to GitHub to try it out (make sure to use SSH address instead of HTTPS)

# 8. Extra exercises

8.1 Practice the basic commands more if it is not clear why and when to use them

8.2 You can get to know the following commands:

`git show`

`git diff`

`git stash`

`git revert`

`git grep`

`git cherry-pick`

`git log`

`git tag`

`git rebase`

`git squash`

8.3 Do git exercises and get deeper by doing the exercises from <https://learngitbranching.js.org>



