

GANDALF school

GIT primer

Giovanni Rosotti, David Hubber
Richard Booth, James Dale, Judith Ngoumou

1. Exercise 1

- Initialise a new git repository inside an empty folder
- Create an empty README file. What happens if you run git status?
- Use the add command to add README to the staging area. Is there any difference if you run again git status?
- Do a commit, then run git status again
- Modify README by adding a new line (with the text you want!), then run git status again
- Commit the changes to README
- Use git log to see the list of commits you have done
- Create a new folder and move README inside it. What does git status tell you? Commit the changes. Tip: git is pretty smart in figuring out if you moved around a file. But you can also “help” it using the git mv command.
- Create a new branch and switch to it
- Modify README by adding a new line and modifying the existing line, then commit
- Checkout the master branch and open README. What is its content?
- Modify the existing line in README and commit the change.
- Merge the new branch previously created. Does it just run fine?
- Solve the conflict by removing the conflict markers and decide which version you want to keep. Then commit
- Use gitk (or any other software you prefer) and give a look at the history of your repository. Tip: use the --all option to start gitk to see also the other branches

2. Exercise 2 (optional)

- Initialise a new empty repository. Work in pairs and set up an online repository (e.g. on bitbucket or github) for each pair. Add it as a remote
- Person A: create the file a.c, insert some content, commit and push the change
- Person B: create the file b.c, insert a line with some content, commit and try to push the change. Does git allow you to do that?
- Person B: pull and then push
- Person A: pull the changes. Modify the existing content of b.c, commit and push
- Person B: modify the existing content of b.c (but do not commit) and pull. What does git tell you?
- Person B: Commit and try to pull. What happens?
- Person B: Solve the conflict, commit and push
- Person A: Pull. Do you have a conflict in this case?