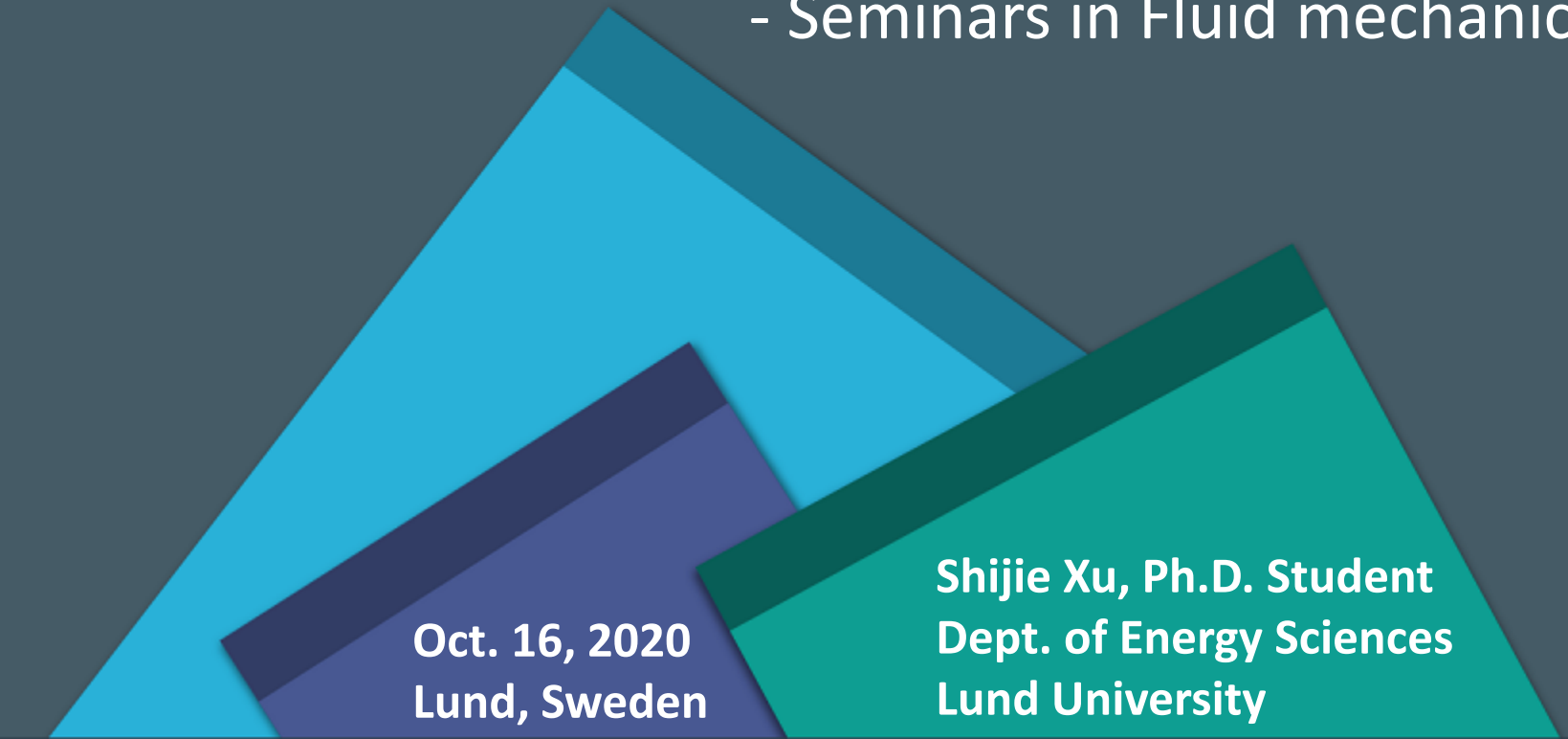
CFD source code management with Git and GitHub

- Seminars in Fluid mechanics



Oct. 16, 2020
Lund, Sweden

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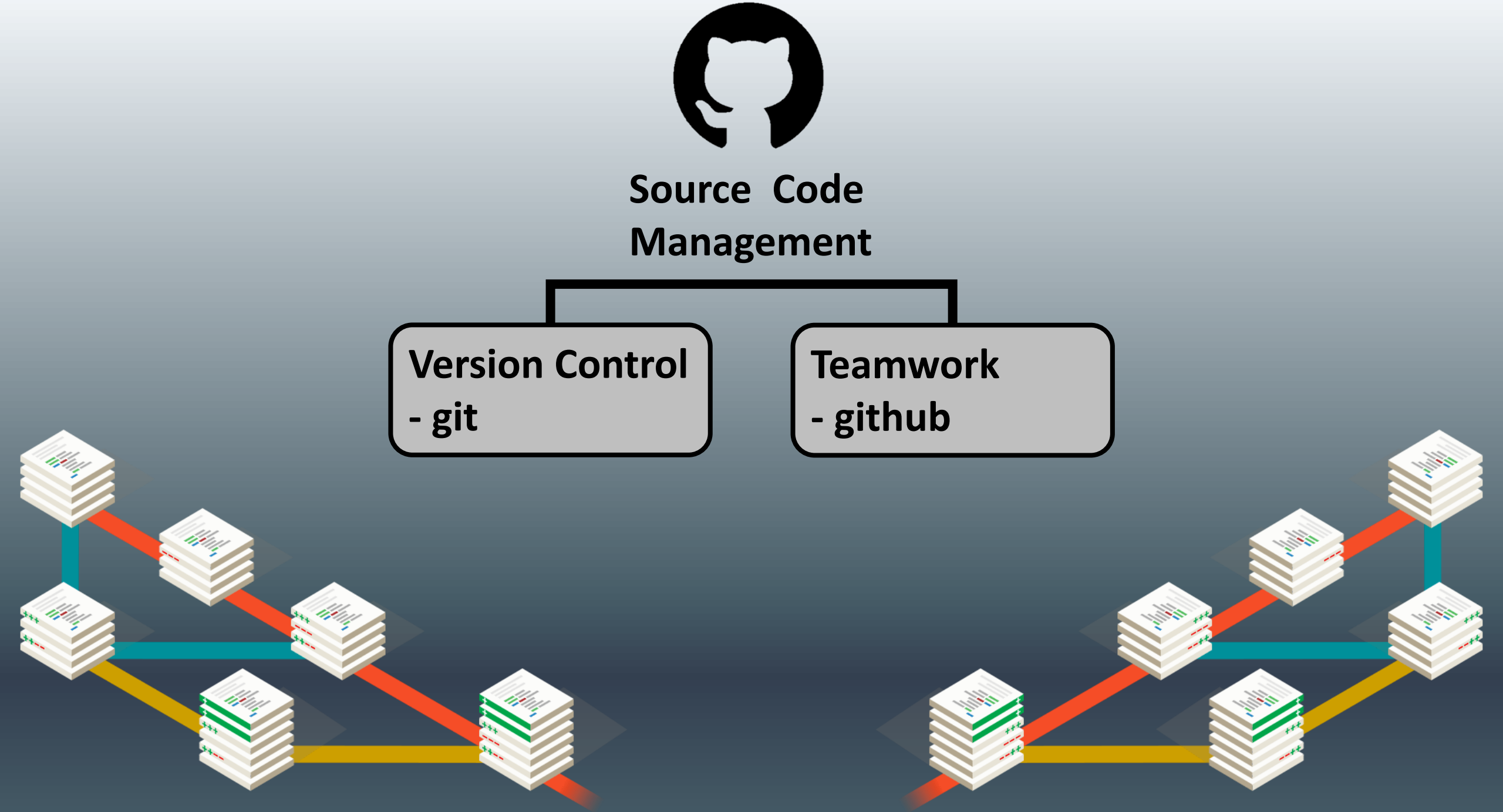
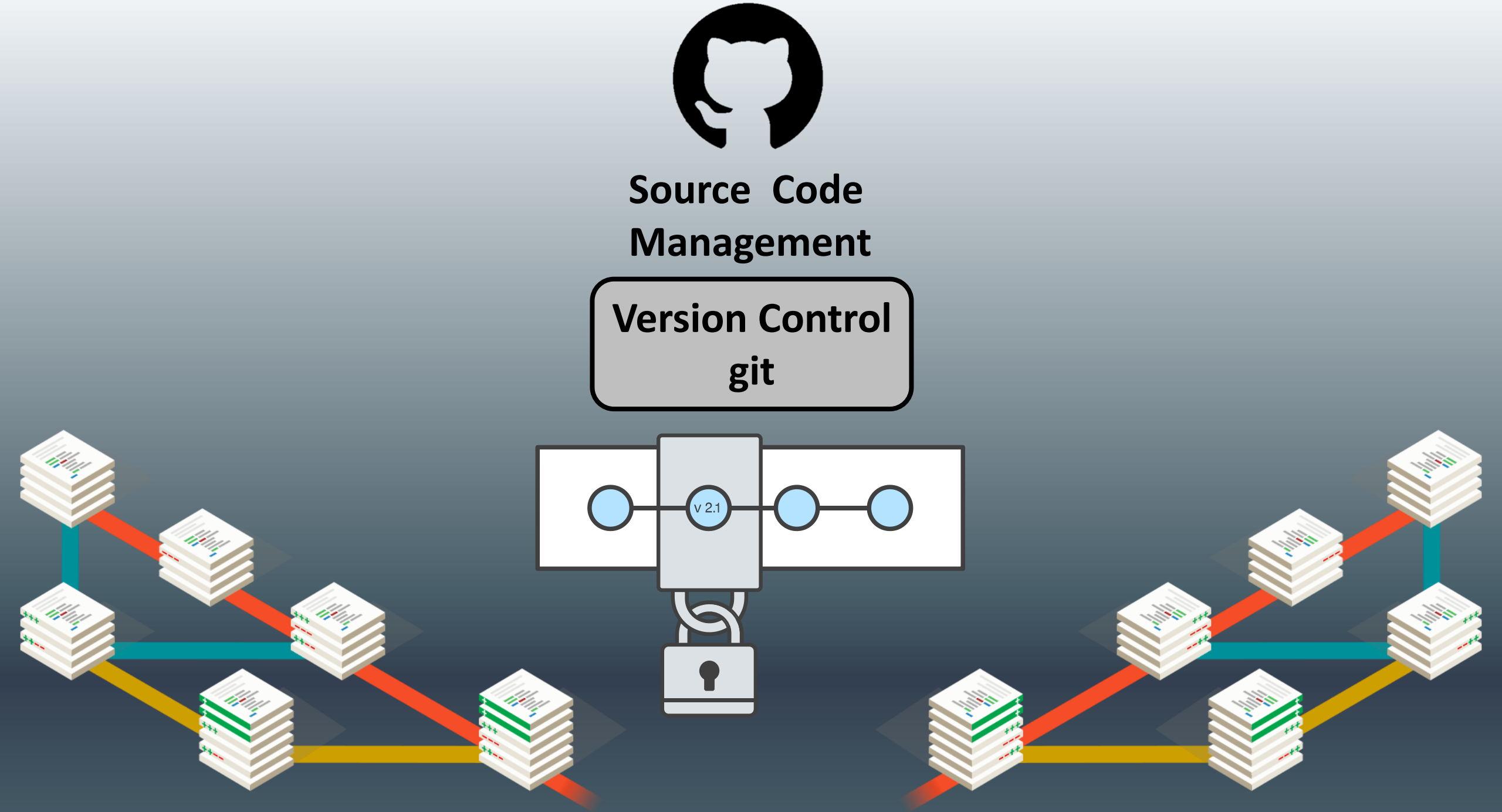
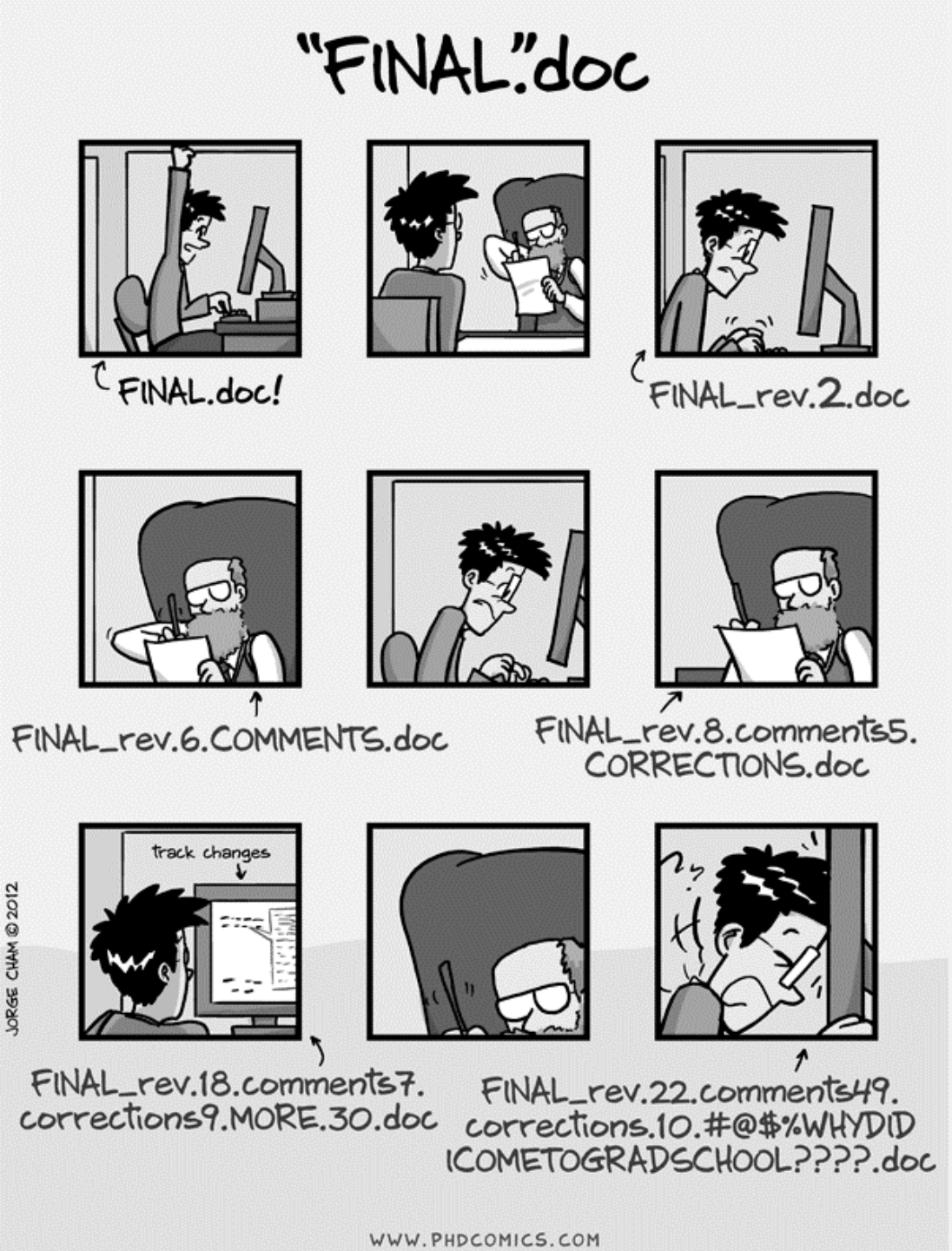

Source Code Management
Version Control
- git
Teamwork
- github


Source Code Management
Version Control
git
v 2.1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FINAL.doc!
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CORRECTIONS.doc
track changes
FINAL_rev.18.comments7.
corrections9.MORE.30.doc
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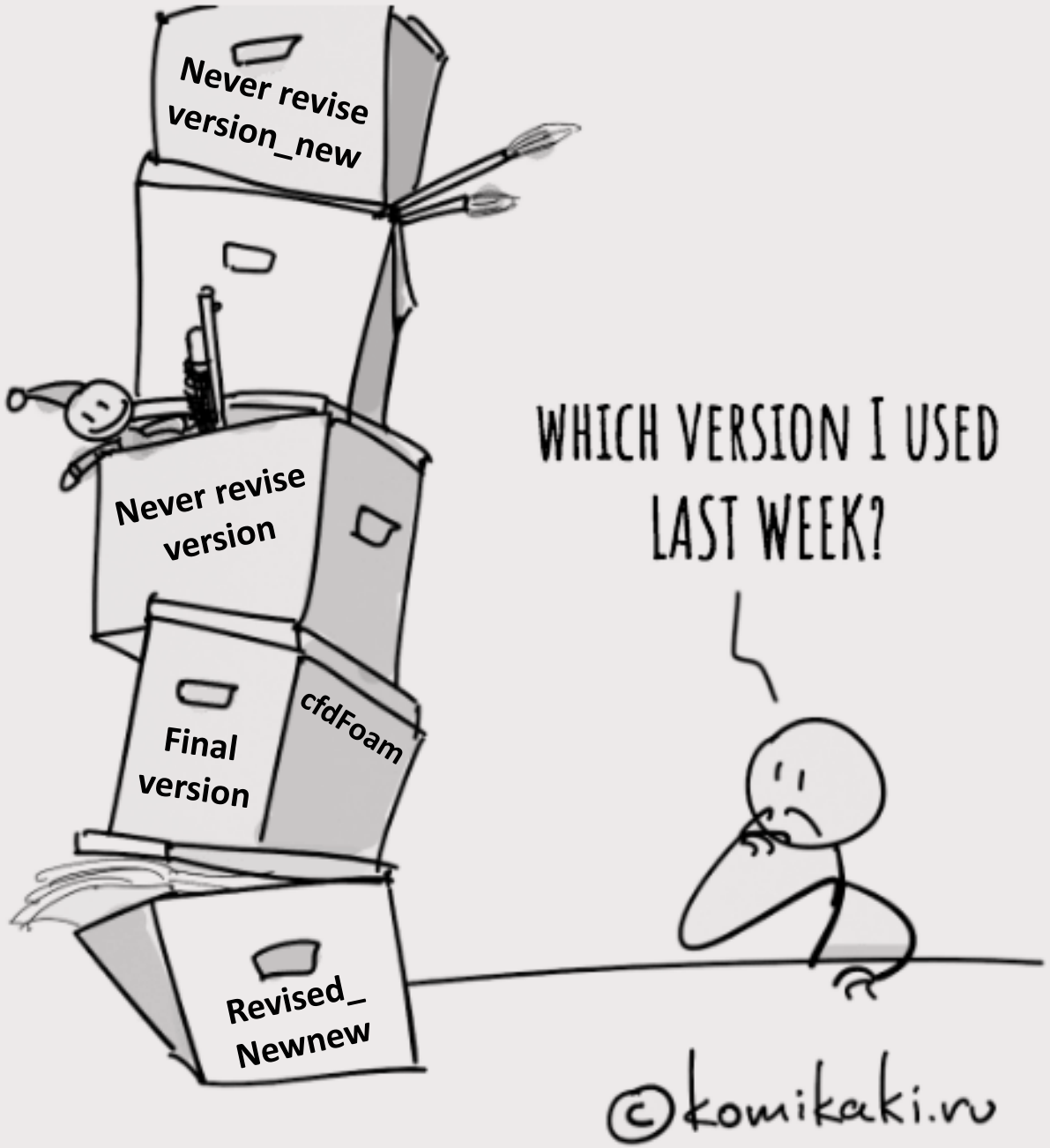
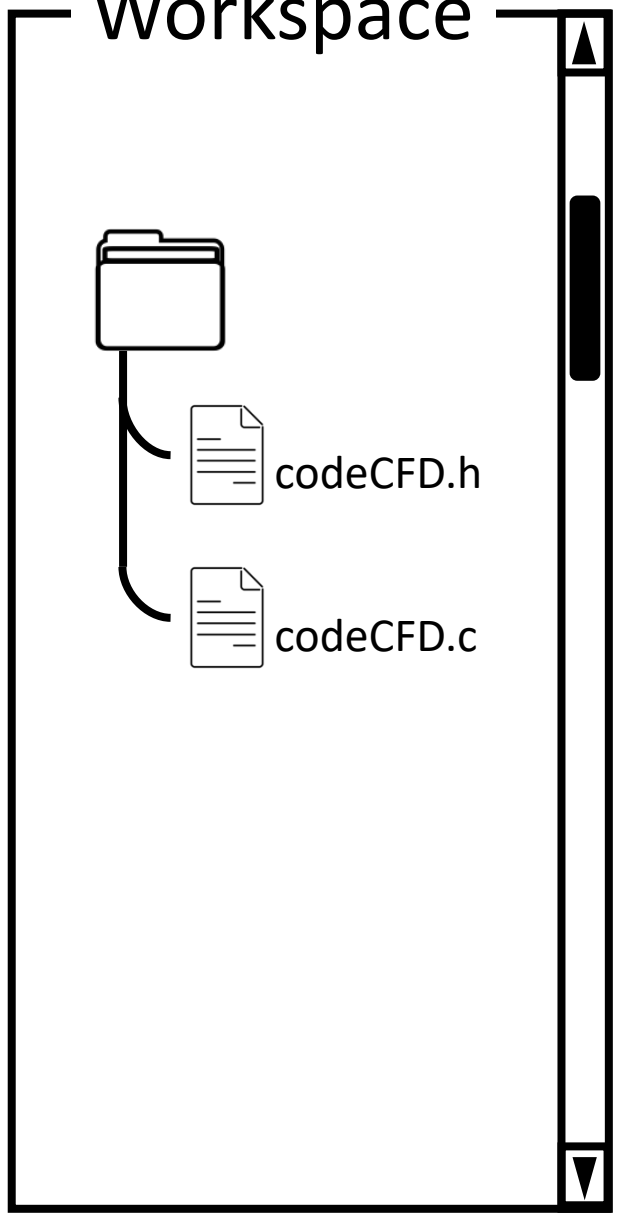
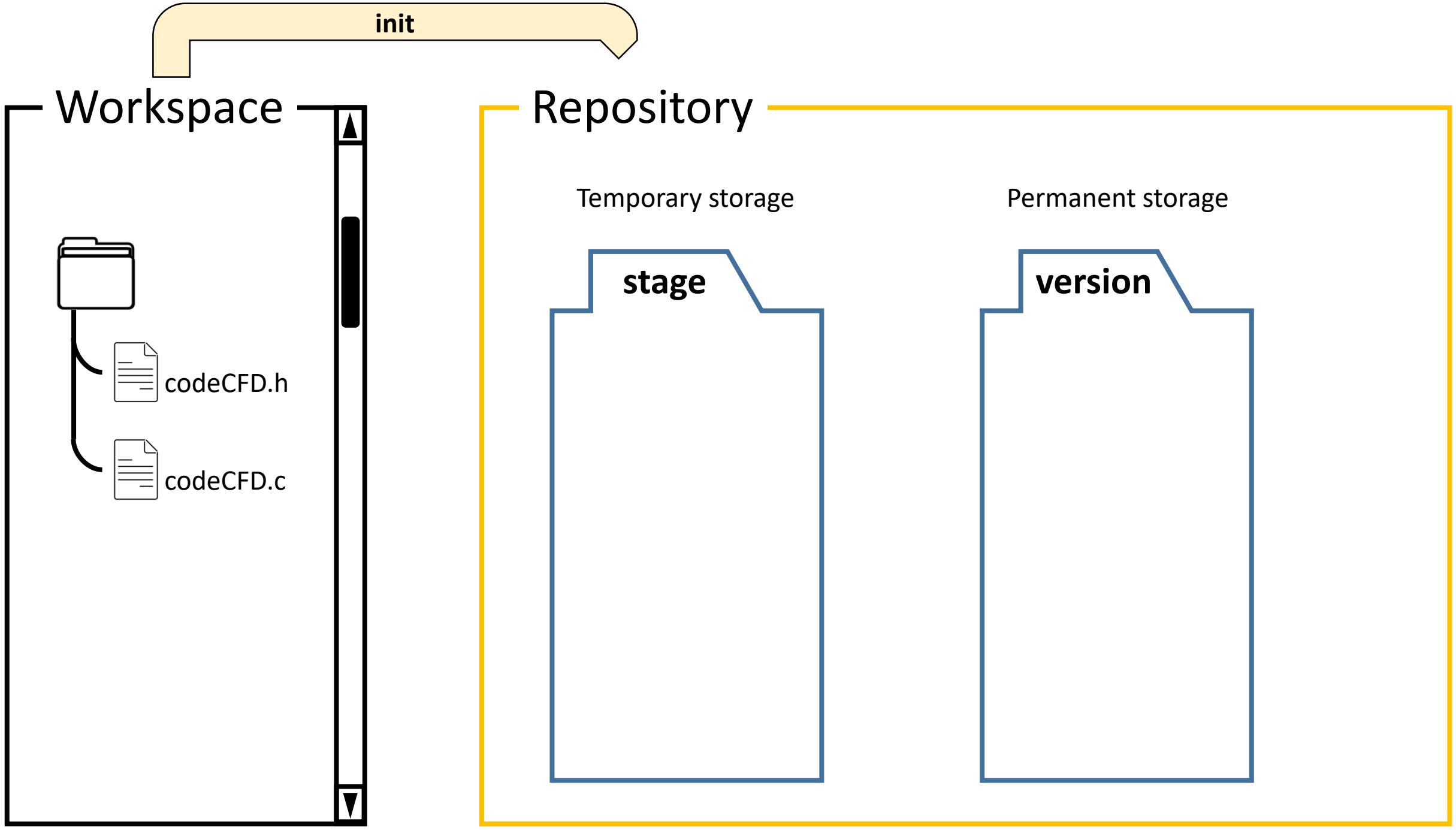
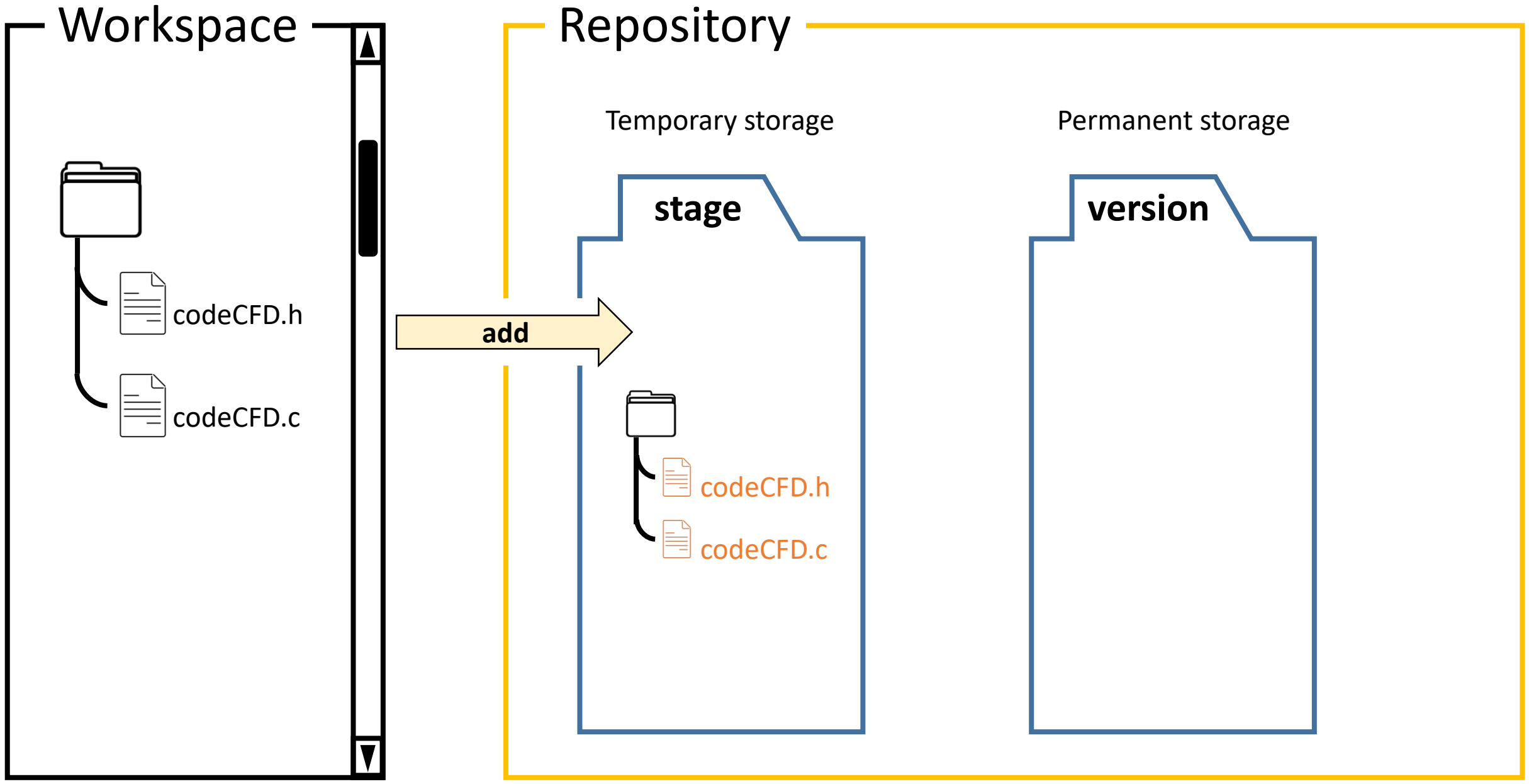
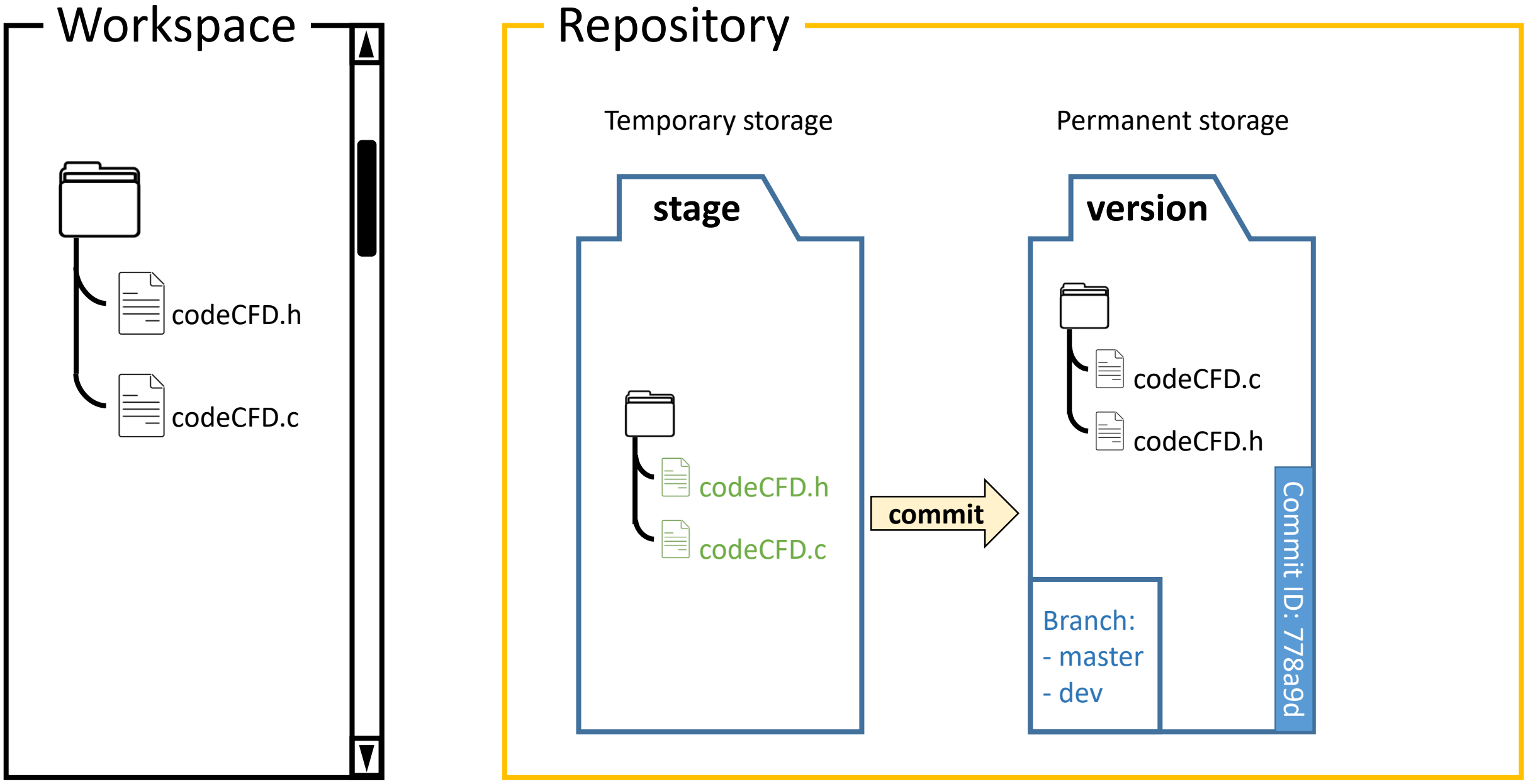
JORGE CHAM © 2012
WWW.PHDCOMICS.COM

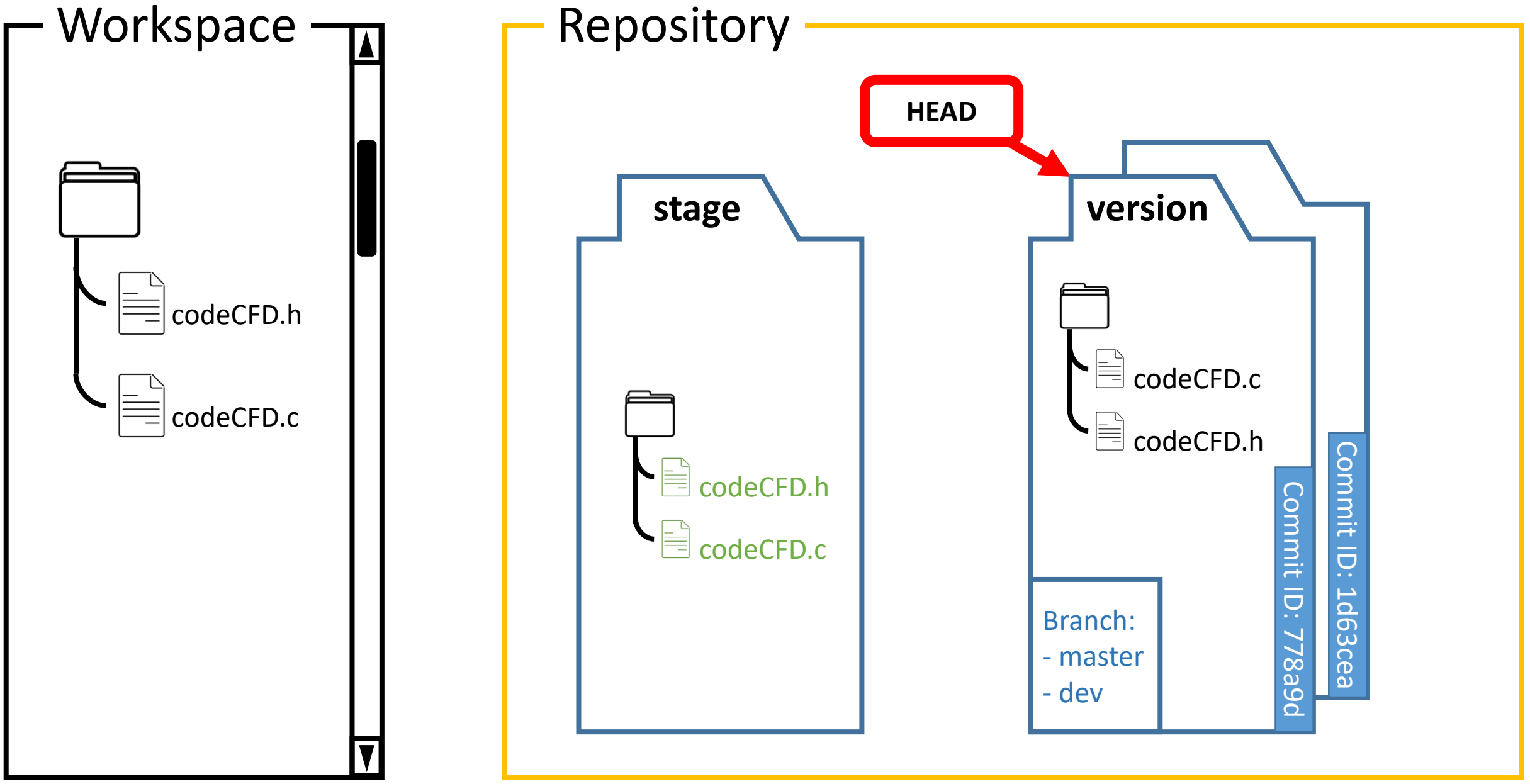

Never revise
version_new
Never revise
version
Final
version
cfdFoam
Revised_
Newnew
WHICH VERSION I USED
LAST WEEK?
©komikaki.ru

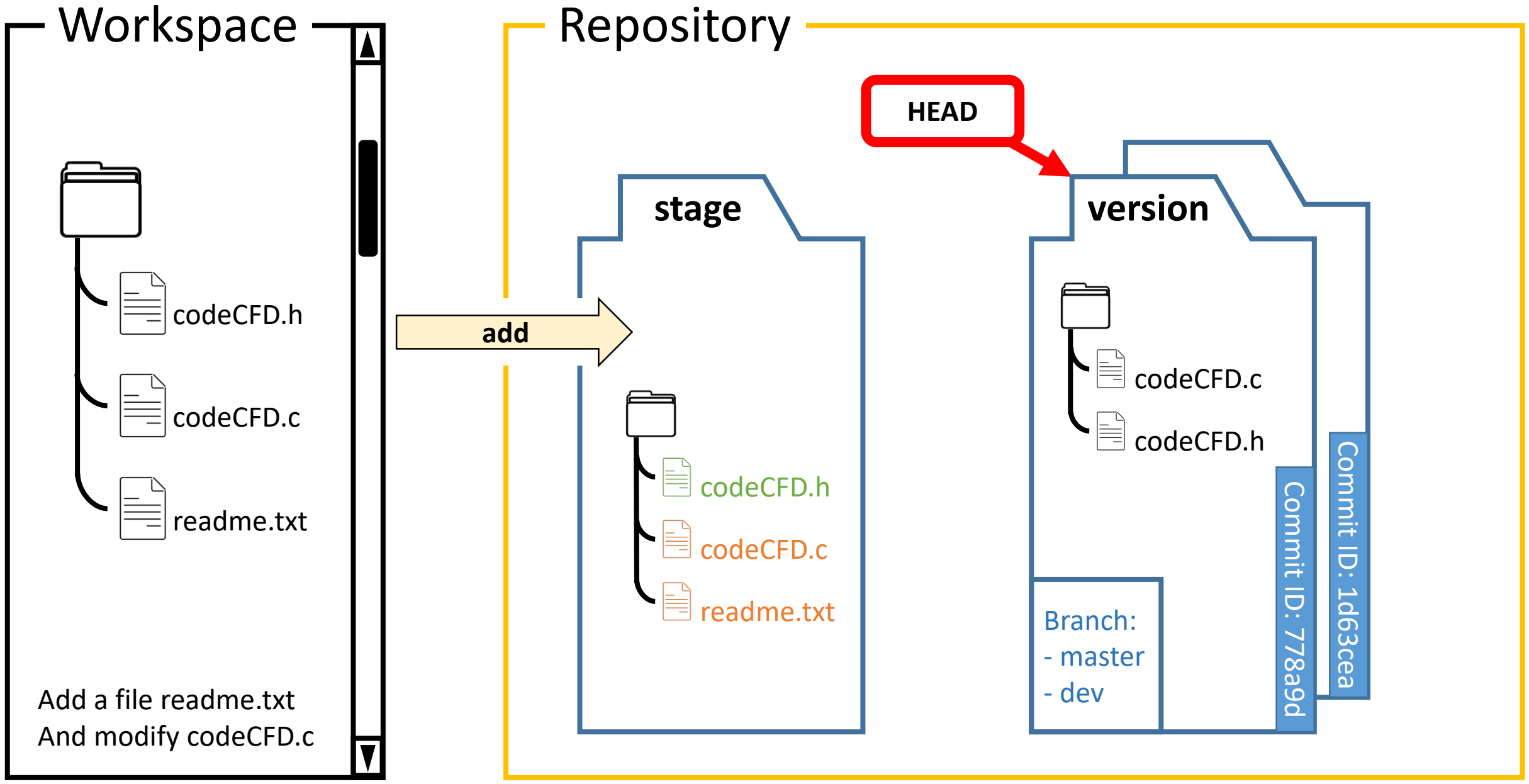

Workspace
codeCFD.h
codeCFD.c

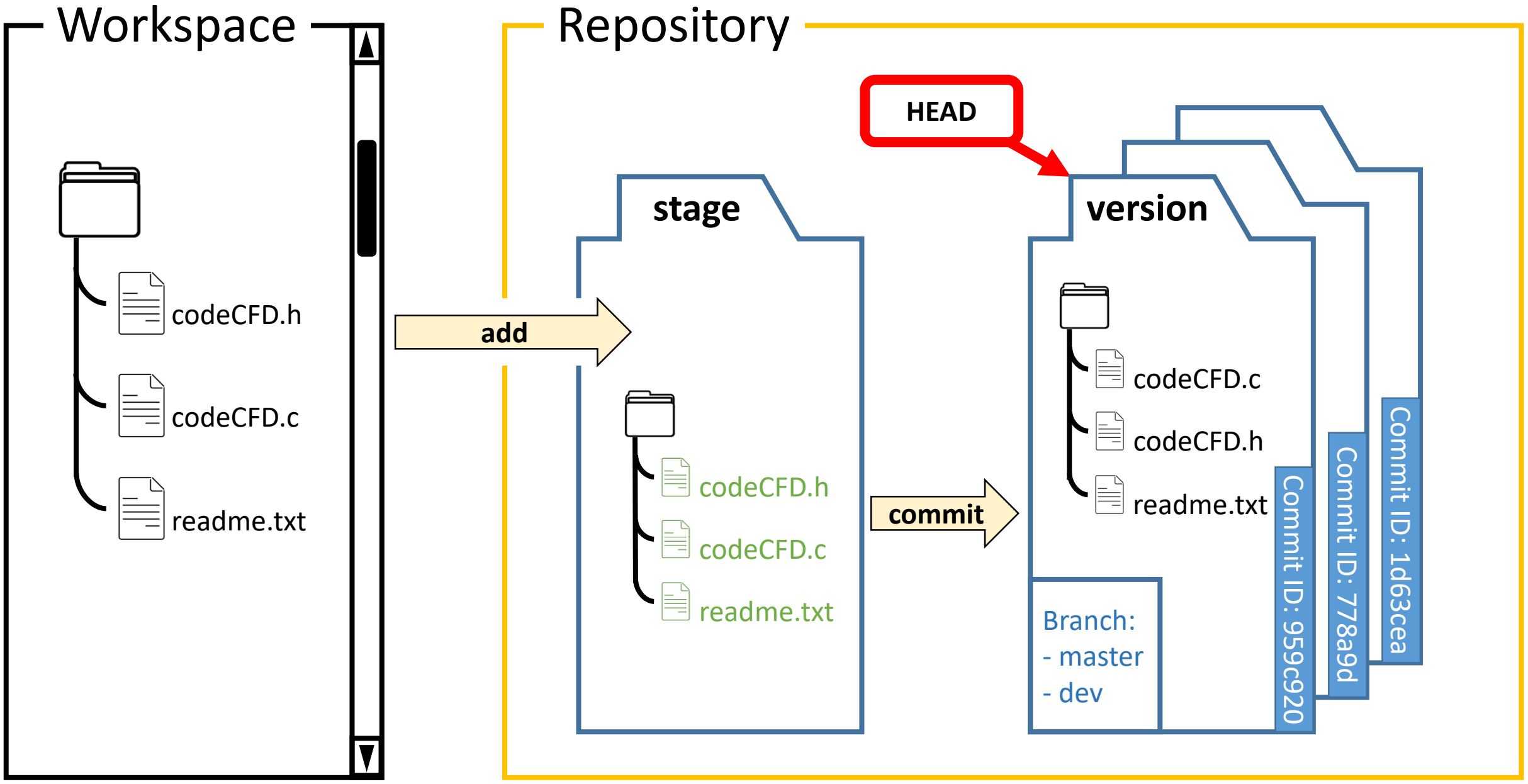

init
Workspace
codeCFD.h
codeCFD.c
Repository
Temporary storage
Permanent storage
stage
version

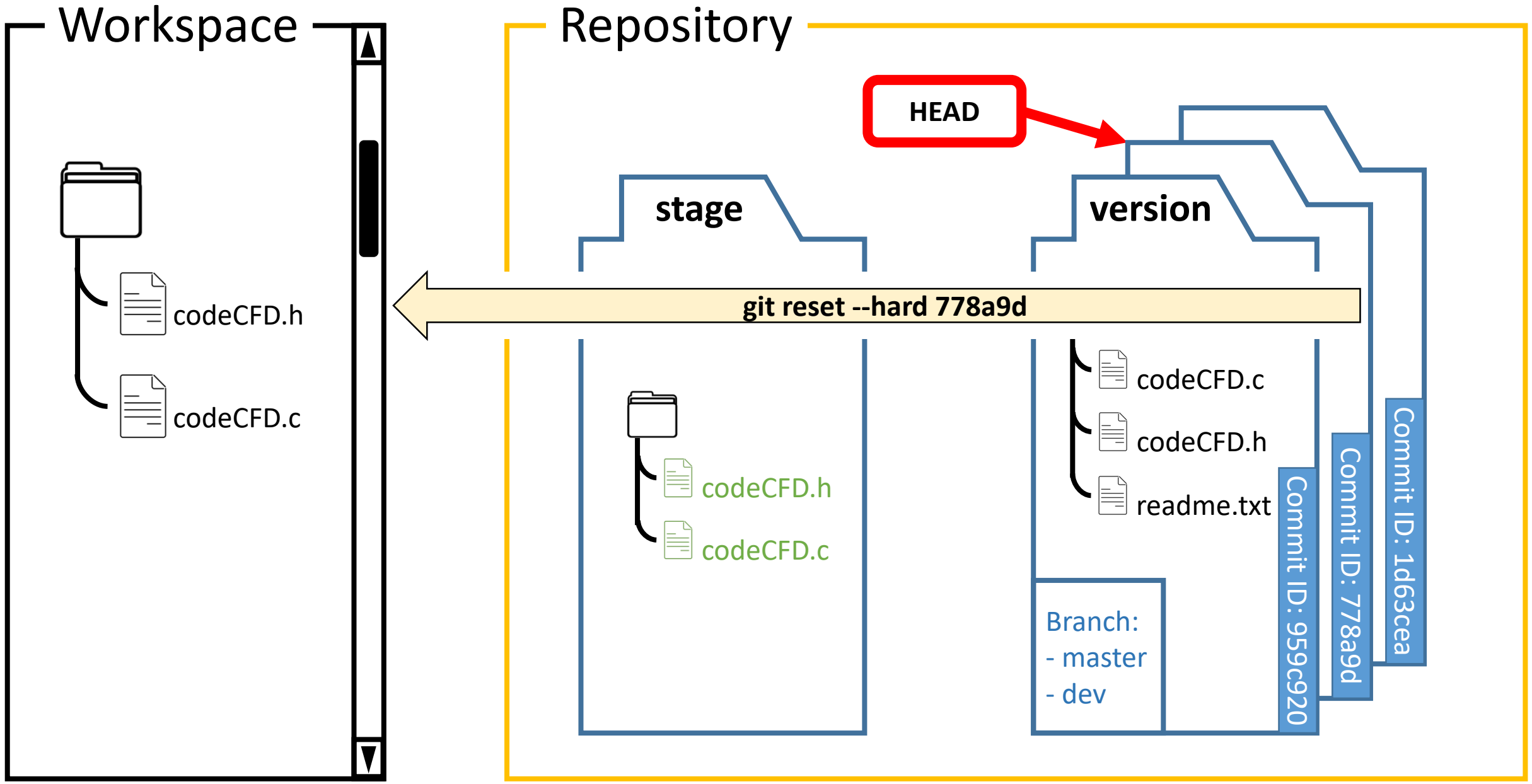

Workspace
codeCFD.h
codeCFD.c
add
Repository
Temporary storage
stage
codeCFD.h
codeCFD.c
Permanent storage
version


Workspace
codeCFD.h
codeCFD.c
Repository
Temporary storage
Permanent storage
stage
codeCFD.h
codeCFD.c
commit
version
codeCFD.c
codeCFD.h
Branch:
- master
- dev
Commit ID: 778a9d


Workspace
codeCFD.h
codeCFD.c
Repository
HEAD
stage
codeCFD.h
codeCFD.c
version
codeCFD.c
codeCFD.h
Branch:
- master
- dev
Commit ID: 778a9d
Commit ID: 1d63cea


Workspace
codeCFD.h
codeCFD.c
readme.txt
Add a file readme.txt
And modify codeCFD.c
add
Repository
HEAD
stage
codeCFD.h
codeCFD.c
readme.txt
version
codeCFD.c
codeCFD.h
Branch:
- master
- dev
Commit ID: 778a9d
Commit ID: 1d63cea


Workspace
codeCFD.h
codeCFD.c
readme.txt
add
Repository
HEAD
stage
codeCFD.h
codeCFD.c
readme.txt
commit
version
codeCFD.c
codeCFD.h
readme.txt
Branch:
- master
- dev
Commit ID: 959c920
Commit ID: 778a9d
Commit ID: 1d63cea


Workspace
codeCFD.h
codeCFD.c
Repository
HEAD
stage
version
git reset --hard 778a9d
codeCFD.h
codeCFD.c
codeCFD.c
codeCFD.h
readme.txt
Branch:
- master
- dev
Commit ID: 959c920
Commit ID: 778a9d
Commit ID: 1d63cea

How to install and use git?

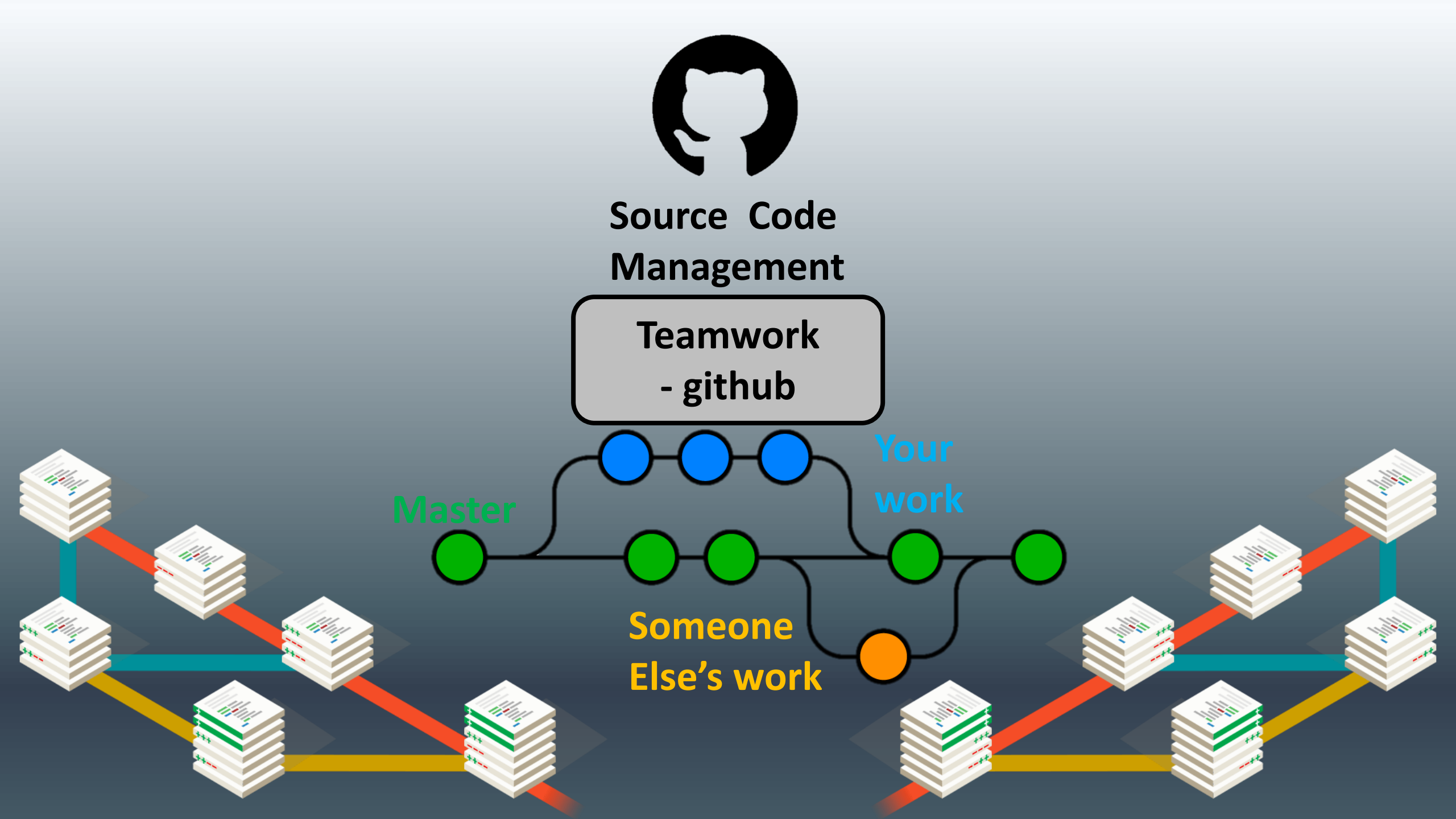
GUI (Graphical User Interface):

- Github desktop software

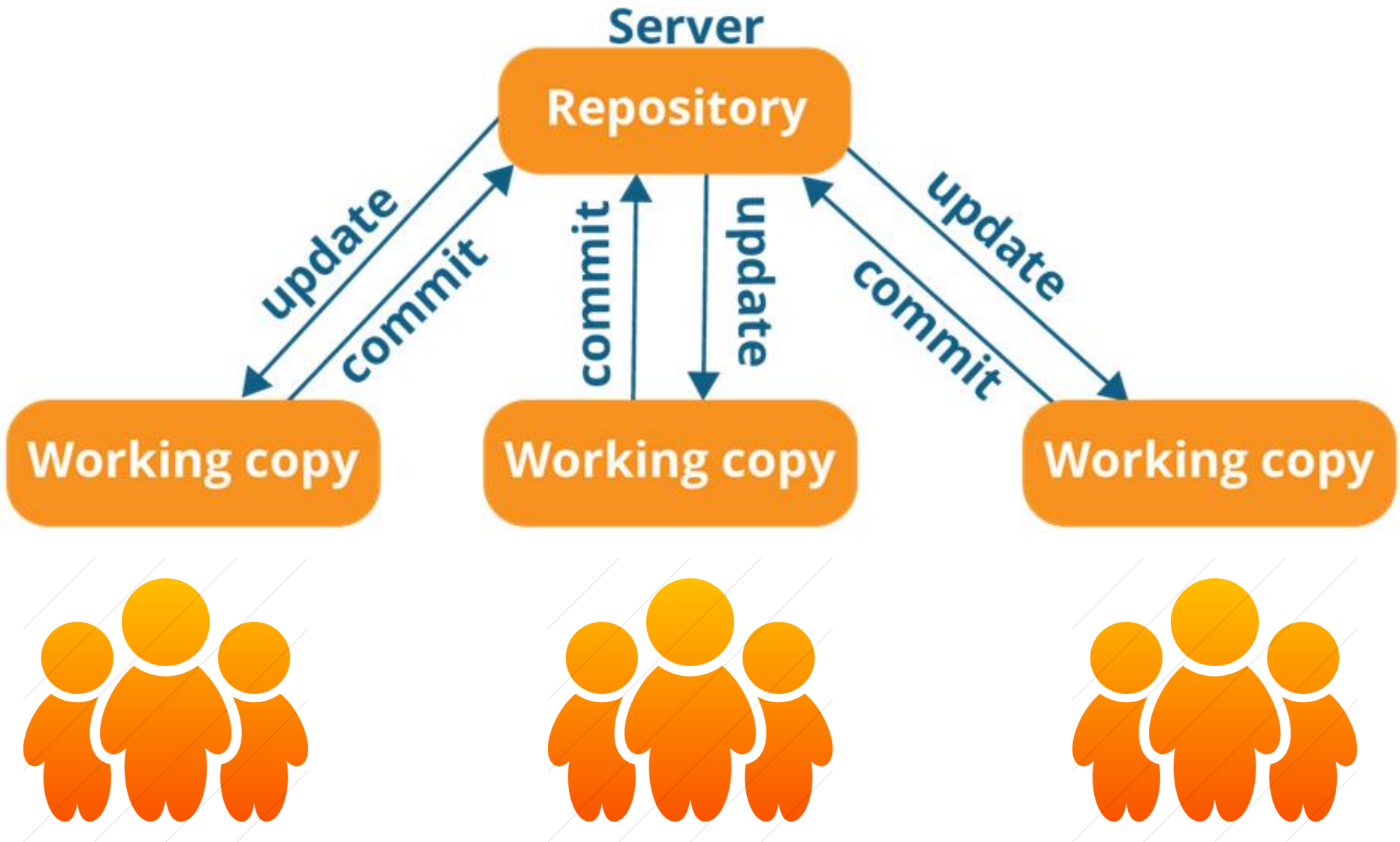
CLI (Command-Line Interface)

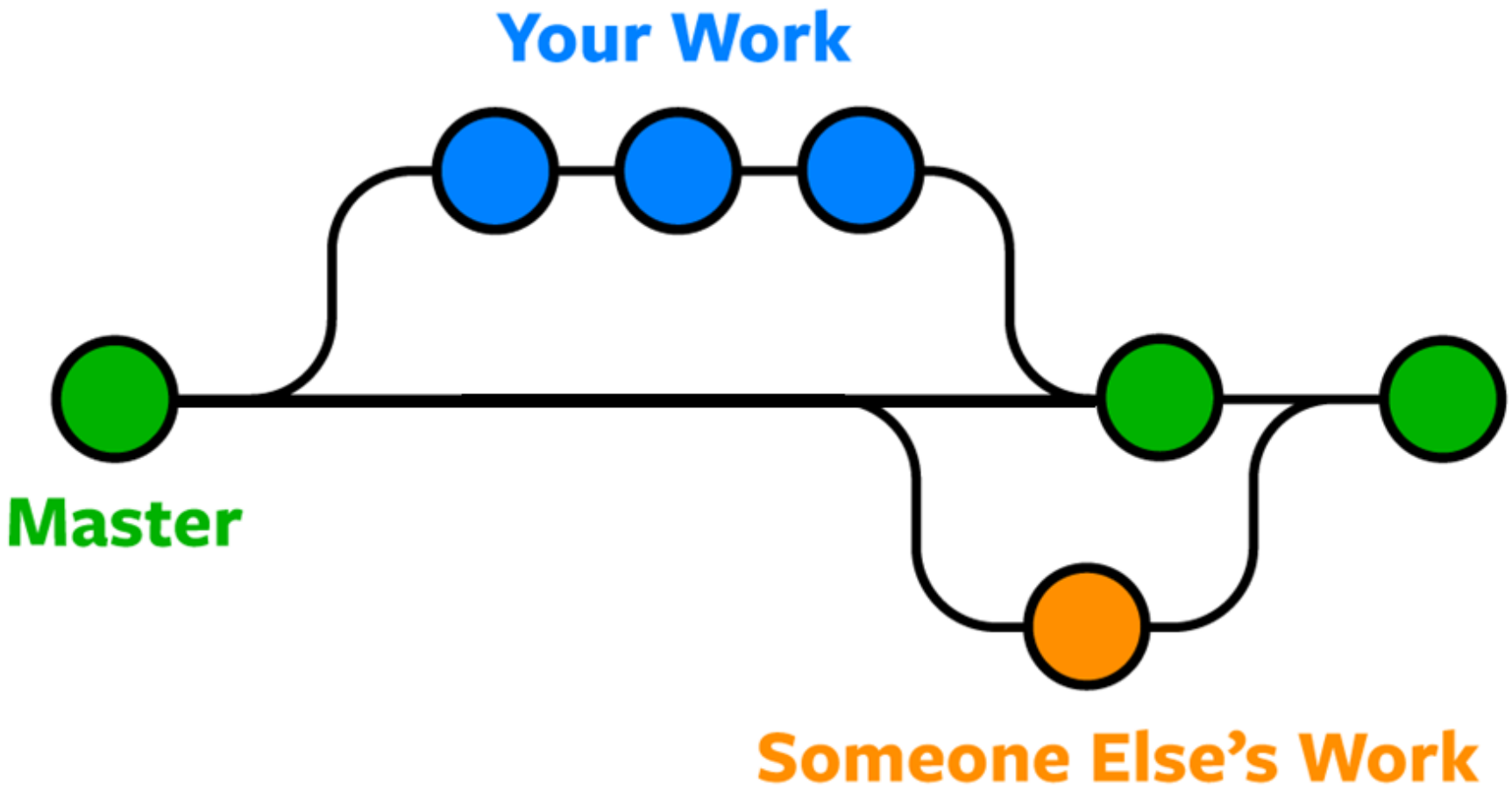
- Official document: https://git-scm.com/docs
- My Blog: https://zmeng.tech/2020/06/GitUsage/

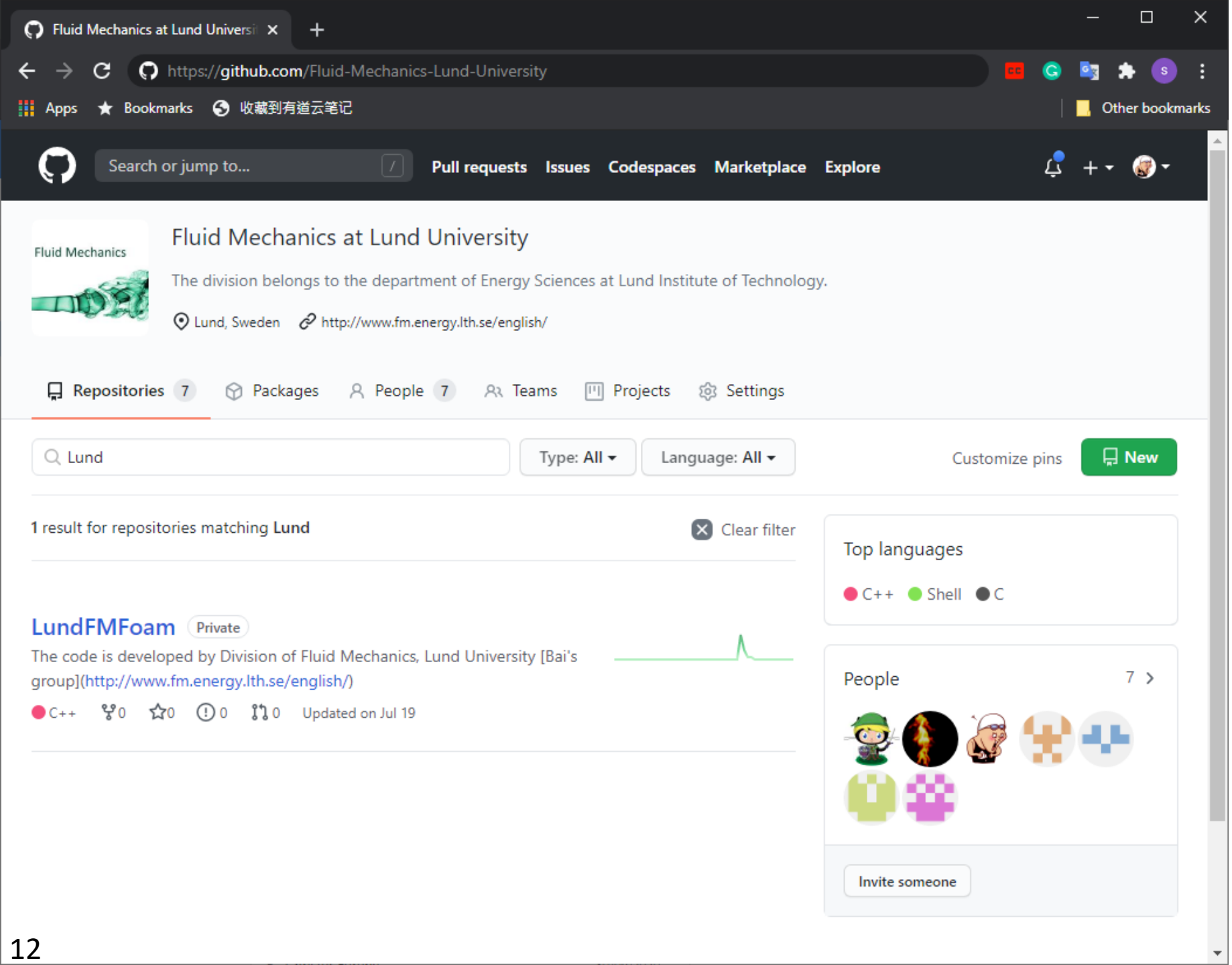
An example of CLI git useage


Source Code Management
Teamwork - github
Master
Your work
Someone Else's work

Centralized version control system




Your Work
Master
Someone Else's Work



Github Organization

Webpage:
https://github.com/Fluid-Mechanics-Lund-University

Repositories:
Private and public

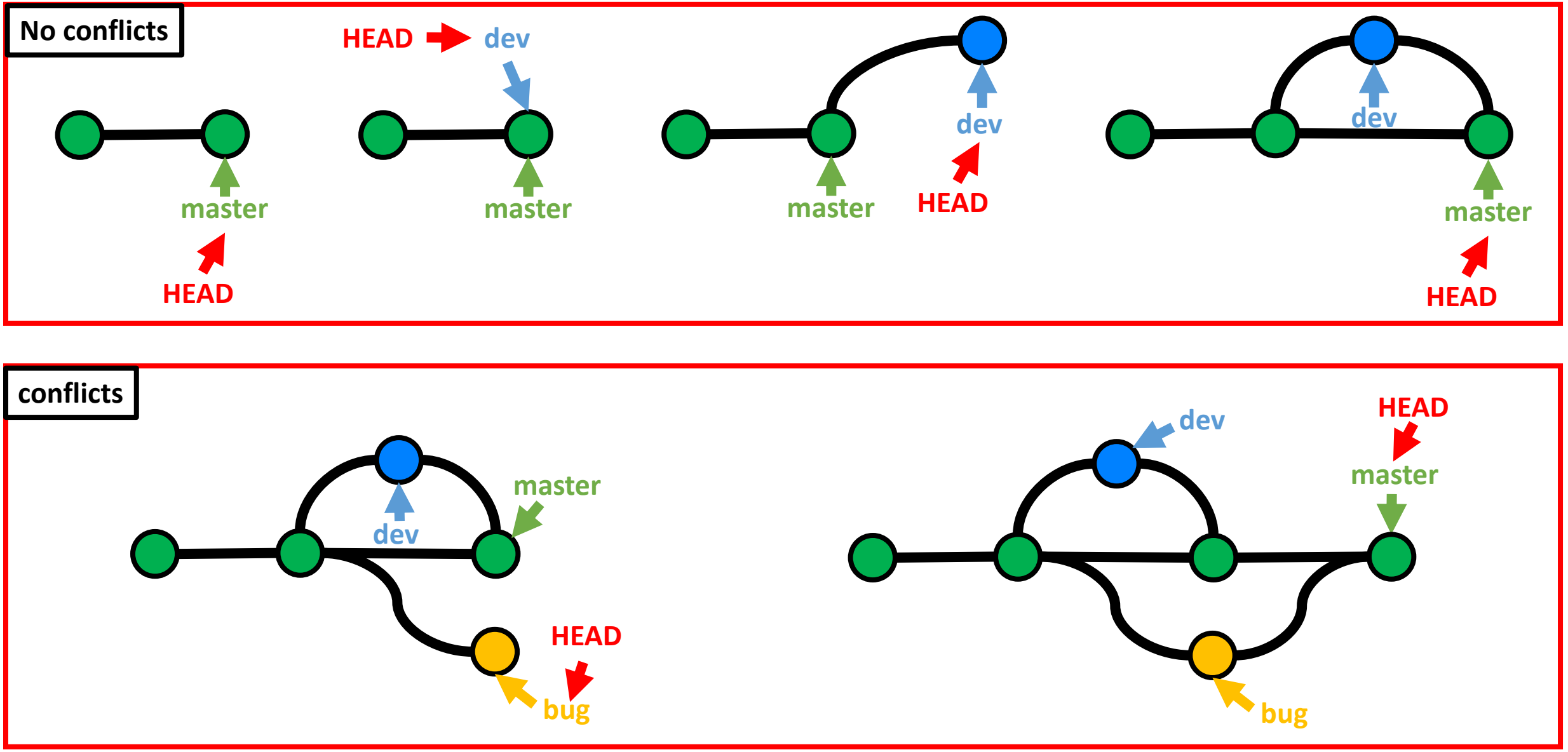
People:
Group member, Collaborators

Permissions:
Repository permissions for admin, group member and collaborators

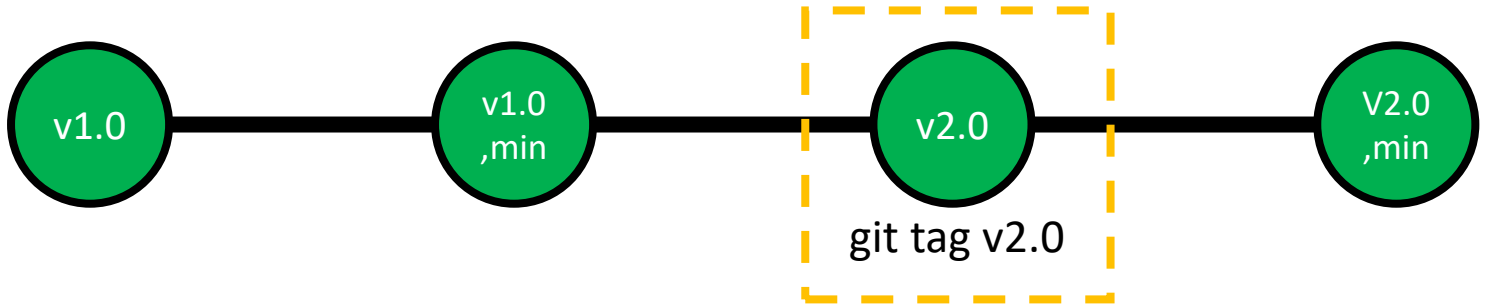
How to use github?

An example of Github teamwork.

Appendix: branches

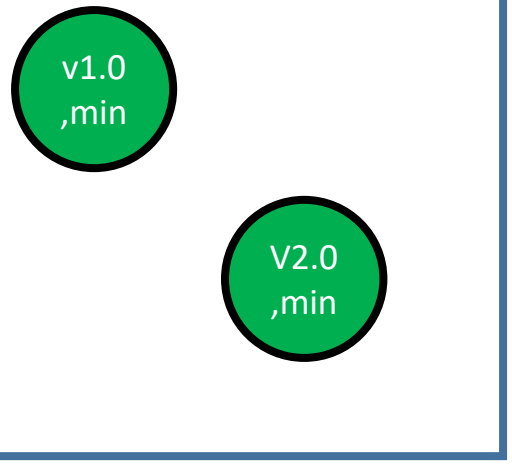


Appendix: tags



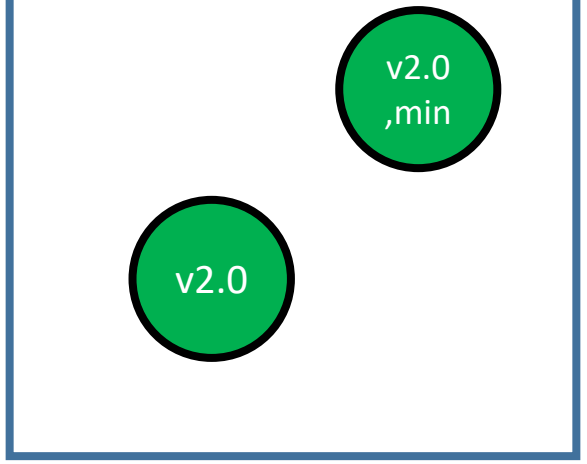
Tags: min

git show min



Tags: v2.0

git show v2.0



Thank you

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