

RE-COOP #8:

A round-up around GIT ...
... informal of course !!!

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① History

② What is GIT?

Definitions

1st study case

2nd study case

3rd study case

4th study case

③ GIT more in details

The big picture

Branch principle

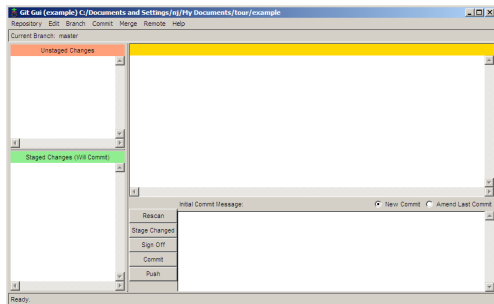
GitHub

Usual commands



A bit of History ...

For Microsoft Windows users





A bit of History ...

For Linux users

[illegible]



A bit of History ...

Original author



A bit of History ...

Original author

Linus Torvalds





What is GIT?

Definitions

Formal definition

- ▶ Git is a distributed revision control system with an emphasis on speed, data integrity, and support for distributed, non-linear workflows.
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- ✓ Easy way to merge work,
- ✗ Need to learn the tool.



What is GIT? Study cases

Software versioning

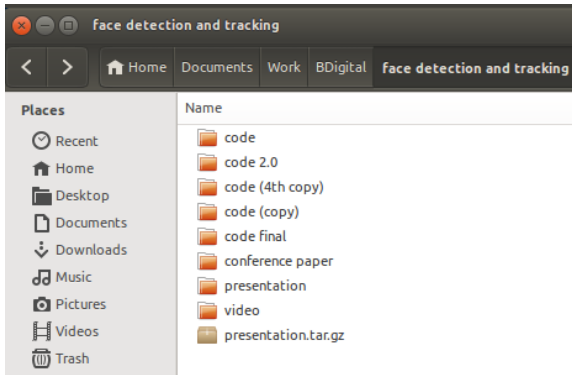




What is GIT?

Study cases

Student case

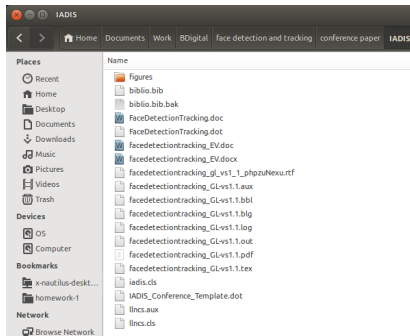




What is GIT?

Study cases

Writing case

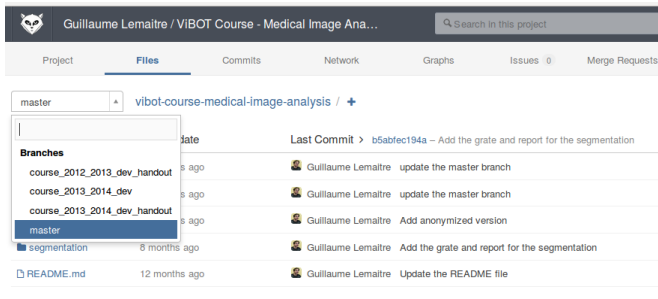




What is GIT?

Study cases

Education case



The screenshot shows a GitHub repository page for 'Guillaume Lemaitre / VIBOT Course - Medical Image Ana...'. The 'Files' tab is selected, and a dropdown menu is open for the 'master' branch, showing a list of branches: 'course_2012_2013_dev_handout', 'course_2013_2014_dev', 'course_2013_2014_dev_handout', and 'master' (highlighted). The main content area shows a list of commits, with the most recent commit being 'b5abfec194a - Add the grate and report for the segmentation' by Guillaume Lemaitre, committed 8 months ago. The commit message is 'Add the grate and report for the segmentation'. The commit history shows several updates to the master branch and one update to the README file.

Branches	Commit	Author	Message	Time
course_2012_2013_dev_handout				
course_2013_2014_dev				
course_2013_2014_dev_handout				
master	b5abfec194a	Guillaume Lemaitre	Add the grate and report for the segmentation	8 months ago
segmentation				8 months ago
README.md				12 months ago

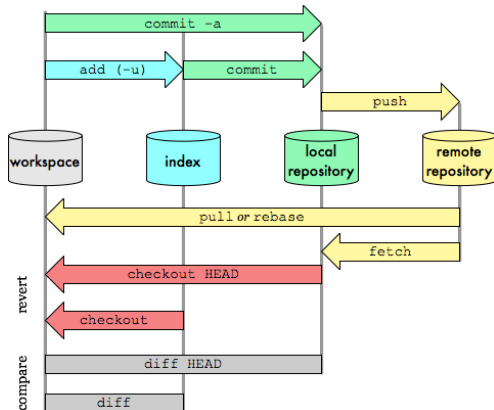


GIT more in details

The big picture

Git Data Transport Commands

<http://osteele.com>





GIT more in details

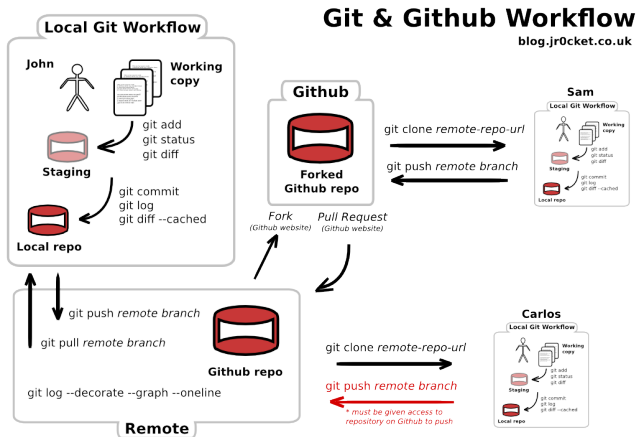
Branch principle





GIT more in details

And GitHub in all that ...





GIT more in details

Usual commands

Local GIT - usual

- ▶ `git add`: command to track change for a file,
- ▶ `git status`: get the status of the repository,
- ▶ `git diff`: see the difference inside the file,
- ▶ `git commit`: save the changes. It will be possible to come back on this node,
- ▶ `git checkout`: come back to a specific commit.

Local GIT - branching

- ▶ `git branch`: to create a new branch,
- ▶ `git checkout`: navigate to other branch,
- ▶ `git merge`: merge branches,
- ▶ `git cherry-pick`: select a specific commit for merging.



GIT more in details

Usual commands

Remote GIT - synchronization

- ▶ `git push`: upload changes from local to remote,
- ▶ `git pull`: download changes from remote to local and apply changes,
- ▶ `git fetch`: download changes from remote,
- ▶ `git rebase`: apply changes downloaded from remote.