**Memo GIT commands : DATA +8**

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| --- | --- | --- |
| **Instruction** | **Utilisation** | **Exemples** |
| status | Shows the working tree status  The *git status*command displays the state of the working directory and the staging area. It lets you see which changes have been staged, which haven’t, and which files aren’t being tracked by Git. Status output does *not* show you any information regarding the committed project history. For this, you need to use *git log*. | git status |
| diff | Shows changes between commits, commit and working tree, etc | git diff |
| add | Adds file contents to the index | git add myfile.txt |
| commit | Records changes to your local repository | git commit –m ‘’added myfile.txt ‘’  git commit # with no message after a conflict |
| log | Shows commit logs/historic | git log |
| push | Updates the server by pushing my local changes (push origin “remotename” – ex: your local repository to “branchname”: ex master on the server) | git push origin master |
| pull | Fetches from and integrate with another repository or a local branch – pulls changes down from the remote to my pc (pulls from “remotename” ex:  origin to the server to “branch name” ex: master on your local repository) | git pull origin master |
| clone | Clones a repository (from GitHub for example) into a new directory (local) | git clone <https://github.com/A-Martin-Tissier/GIT_pandas-examples> |
| init | Creates an empty git repository or reinitializes an existing one (creates .git ) | git init |
| remote | Manages a set of tracked repositories | git remote add origin https://github.com/cavallaric/my\_first\_project.git |
| merge | Incorporates changes from the commits (since the time their histories diverged from the current branch) into the current branch. It command is used by **git pull** to incorporate changes from another repository and can be used by hand to merge changes from one branch into another. | git merge --abort # delete previous merge done by git pull |
| config | Allows to modify the configuration file | git config –global core.editor emacs  git config –l  git config --global user.name cavallaric  git config --global user.email cavallaric@yahoo.com |
| checkout | It allows to switch on a branch/earlier stage Local modifications to the files in the working tree are kept, so that they can be committed to the branch | git checkout sha\_of\_the\_stage # 6ed7eb9  git checkout master # go back to master |
|  |  | .gitignore # allow to add untracked files, like .pyc in python etc |

**Installation**

1. **first install homebrew**

on my mac terminal run this :

/bin/bash -c "$(curl –fsSL <https://raw.githubusercontent.com/Homebrew/install/master/install.sh>)"

Installation successful !

from <https://brew.sh/>

1. **then install git**

run this

$ brew install git

from https://git-scm.com/download/mac

https://git-scm.com/about

**Repository** :

<https://git-scm.com/book/en/v2/Git-Basics-Getting-a-Git-Repository>

**Git vs Github**

Git is a version control system that lets you manage and keep track of your source code history. GitHub is a cloud-based hosting service/plateform that lets you manage Git repositories/projects. If you have open-source projects that use Git, then GitHub is designed to help you better manage them.

**Alternatives to GitHub to host your open source projects**

**GitLab:** open source software. You can download and install it on your own server (you are not obliged to use the Microsoft server, like in GitHub), not very expensive

**[BitBucket](https://bitbucket.org/product" \t "_blank)**is a version control repository hosting service from Atlassian. Free for teams up to 5 people

**SourceForge**

**Resolution conflicts :**

1/ appearence of the conflict !

modify my file with editor, git add and git commit

$ git pull origin master 🡪 conflict between my local version and the one on the server

2 / solve the conflict by hand by choosing the version that we want

<https://github.com/A-Martin-Tissier/GIT_pandas-examples>

$ git status

both modified 🡪 need to solve the conflict by hand, open the file with my editor

$ git add myfile.txt

$ git commit

$ git status

conflict gone for git too !

3 / $ git push origin master

GIT LFS – Large Files Storage

1 / Download and Install

$ brew install git-lfs

$ git lfs install

2 / In the Git repository where I want to use git lfs, I need to select the files that I want to track

git lfs track ‘’dataSet/\*.txt’’

git status

git add .gitattributes

git commit –m « added my .gitattributes »

git pull origin master 🡺 problem : conflict to solve in .gitattribute

git status

solve the confict by hand, git add, git commit, git status

git push origin master