Git

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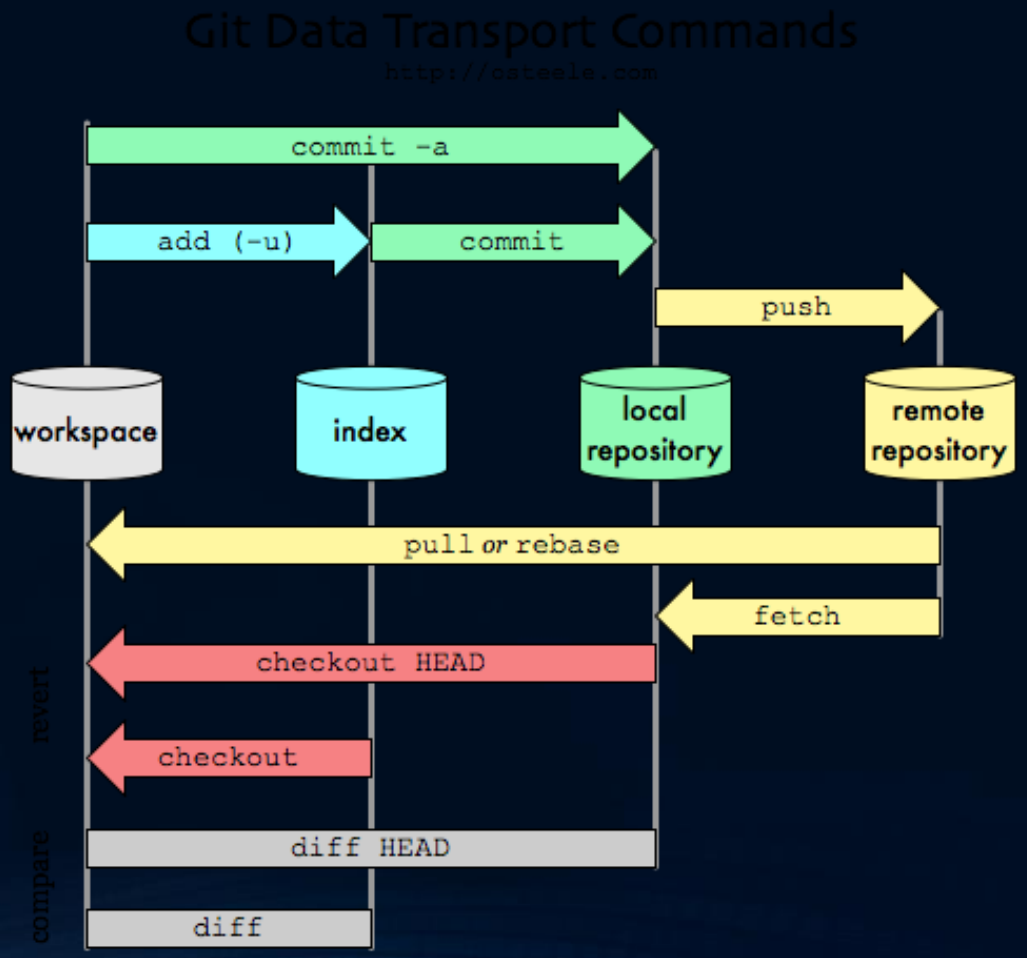
How git works?



How git works?

- Initiate a new git local repository in your project (1 time for project)
- Create a remote repository on GitHub (1 time for project)
- Add remote origin link to local project (1 time for project)
- Do coding (These files are in red color)
- Add files (files are added in the git index - green color)
- commit changes (files are in local git version control)
- Push (committed changes are pushed to remote repo.)
- Pull (pull changes from remote)
- Always check status after every git command

git init

- to initialize git repository

git status

- to see the current status of project in git;
- It is good to check status time to time, sometimes changes occurs and you don’t notice

git add *filename* /
git add *

- When you add a new file or change the existing file in your project, it is untracked by git.
- In this case, use git add command to add file in the git repository
- Add file name with its extension

- Untracked/modified files: red color
- Added files: green color

- To add everything, use * instead of file name

Git file status (not a command)

- Staged
  - Files are ready to be committed
- Unstaged
  - Files with changes that have not been prepared to be committed
- Untracked
  - Files aren’t tracked by git yet. (newly created file)
- Deleted
  - File has been deleted and is waiting to be removed from git

git commit –m “message”

- To store the changes
- More like a snapshot of our repository
- If we ever need to look back at changes we have made, we can see the entire timeline

- **Note:**
- Always perform git status before and after commit
- Perform git commit only after everything is added (green files)
- Always write the message describing what changes you have made

git log

- To check the commit history

git remote add origin *link_of_online_git_repo*

- You don’t just want to keep the project on your local computer, right!
- To put the project online, we use GitHub or GitLab.
- Create a project repository on GitHub, link that project repository to your local project via this command

git push -u origin master

- To tell the Git that we are ready to put all commits to origin repo (on GitHub)
- Name of remote: origin
- Default local branch: master
- -u : parameter to tell Git to remember this command, so next time just git push will work

git pull

- When working with many people on the same project, we can take their changes using this command
- When working with many people, always use pull before push

Tutorial

- https://try.github.io/levels/1/challenges/1

References:

- https://try.github.io/levels/1/challenges/1
- https://github.com/juanfrans/GSAPP-AP/wiki/Github-Basic-Commands-(Terminal)
- http://osteele.com