



# VERSION CONTROL SYSTEM

- Version control is also known as source control and is used to track and manage the software code changes.
- Famous VCS:
  - Git
  - Apache Subversion
  - Piper(Used by Google)
- Git is a free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency.
- First you need to install the git from the internet and set the path in the local machine.

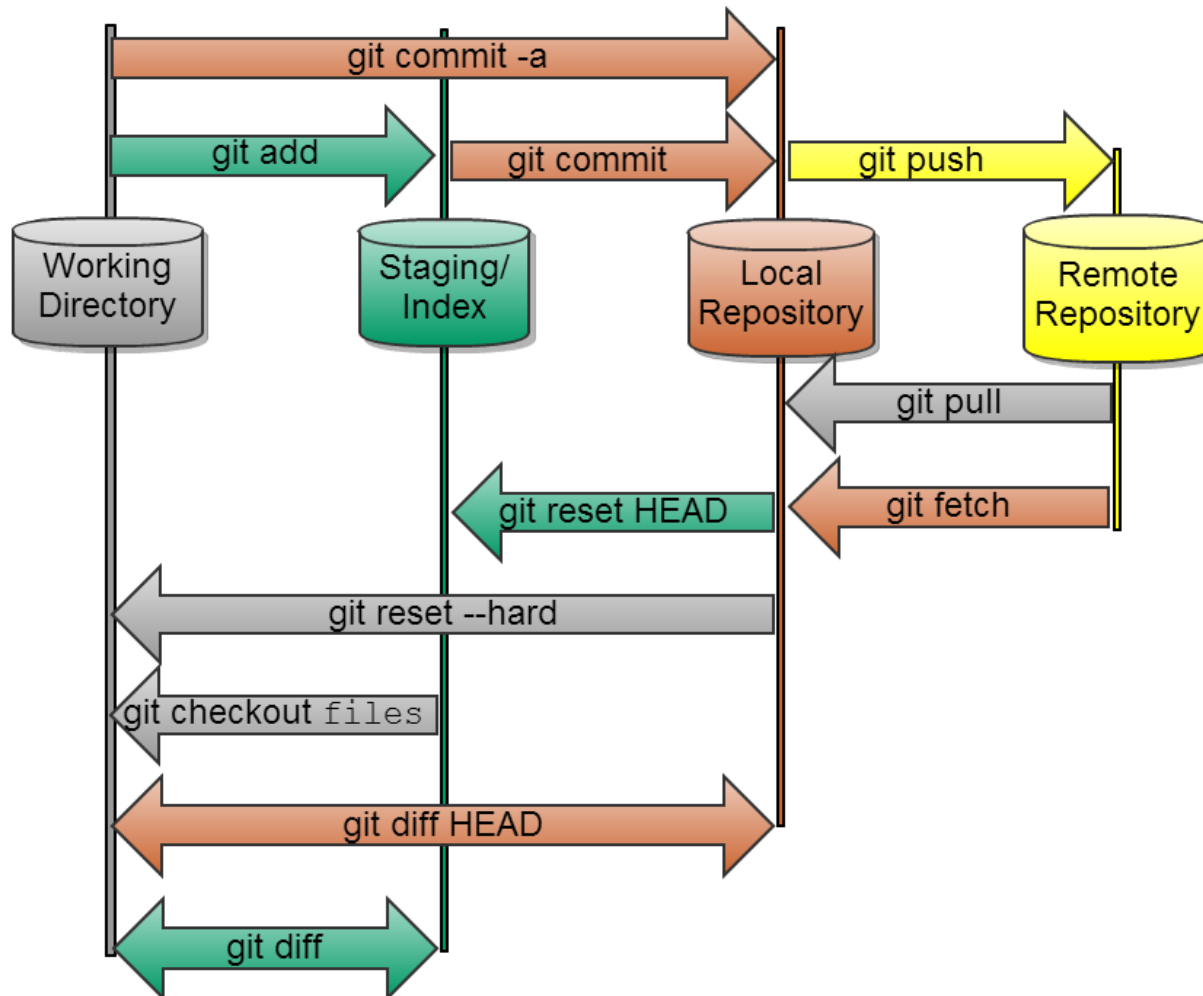


# GIT COMMANDS

- Initializing the git : `git init`
- Adding files to VCS: `git add <FILE_PATH>`
  - To add all the files: `git add .`
- Removing files from VCS: `git rm <FILE_PATH>`
- Committing files: `git commit -m "<message>"`
- Logging commit histories: `git log`
- View the specific commit histories: `git show <COMMIT_HASH>`
- View the specific file histories: `git blame <FILE_PATH>`
- Reverting the commits: `git reset --hard <COMMIT_HASH>`
- Move to the specific commit without changing the other commits: `git checkout <COMMIT_HASH>`
- To create a new branch with this commit: `git checkout -b <NEW_BRANCH_NAME> <COMMIT_HASH>`



# Git Workflow & Commands





# GITHUB SERVER

- To map the remote server to the git : `git remote add origin <ADDRESS>`
- To check the remote server which is set : `git remote -v`
- To push the commits to the remote : `git push origin <BRANCH_NAME>`
- To create branch : `git branch "<BRANCH_NAME>"`
- To switch to the different branches : `git checkout <BRANCH_NAME>`
- To create branch on remote and push the HEAD commit : `git push -set-upstream origin <BRANCH_NAME>`
- To merge : `git merge origin/<BRANCH_NAME>`