Source code repository

* Git hub
* Git lab
* Bit bucket
* Azure devops

Git client can be used in 2 ways

* Command line interface
  + Git bash
* Git gui

Git Commands

* Clone ---HTTP
  + Git clone https://github.com/anandmudagal/my-python-project.git
* status
  + untracked-it was not tracked by git –red color
  + tracked -it was tracked by git –green color
    - modified
    - deleted
* add
  + unstaged--red
  + staged --green
  + git add \* ---- add all files
  + git add filename
* commit
  + git commit -m "Your commit message here"
* Init
  + To create local git repository
  + Git init
* push
  + local repo to remote repo
  + git push
  + setup access token before pushing code to remote repo-for HTTP
  + git config --global credential.helper store
    - store your access key/email in C:\Users\anand\.git-credentials
  + git push origin main

OR

* Setup SSH key (Refer SSH key setup)—**Recommended**
* Pull
  + Remote repo to local repo
  + Git pull
* Diff
  + Git diff filename
  + Changes done inside the file add/update/delete
* Log
  + Git log
  + Shows all the commit messages.
* Branch
  + Git branch
  + Show current branch
  + Git branch -M Main --- change Master branch name to Main ( to change branch names)
  + Create branch b1 master
* Checkout
  + Git checkout b1 -changes from master to b1
  + Git checkout b2 -changes from b1 to b2
* Merge
* Reset
* Revert
* Stash
* Rebase
* Checkout
* PR process (Peer review process)
  + New requirement- we need to create new branches for req—b1,b2,b3
  + Pull branches to local repo
  + Switch the local repot to branch –b1,b2, b3
  + Make changes to code in local repo
  + Push code from local repo to remote repo
  + Raise PR (peer review)
    - It should be assigned to 2 members in my team for review and approval
    - Both members has to approve to get access to Merge
    - Code in branch (b1, b2) merged with Master branch
    - Now branch code will be in Master branch.
* Checkin

virtual environment

python -m venv myenv

source myenv/Scripts/activate

Steps to setup SSH key for git and github repository-Window PC

Generating SSH key

ssh-keygen -t ed25519 -C "anand.mudagal@example.com"

ed25519—more secure than rsa algorithm

cd ~ (C:/user/anand)

ls -al .ssh – to verify the ssh key generation

Add your **public key** to GitHub

cat ~/.ssh/id\_ed25519.pub

copy the contents

go to Github and add SSH key

Test SSH connection

ssh -T [git@github.com](mailto:git@github.com)

Update your project’s Git remote URL to use SSH

git remote set-url origin g[it@github.com:anandmudagal/my-python-p](mailto:it@github.com:anandmudagal/my-python-p)roject.git

git remote -v