Git/Github

Youtube Sourcehttps://youtu.be/HVsySz-h9r4

- Git is a Distributed Version Control System.
- Download and install git for windows.

  https://git-scm.com/downloads

  ❖ Check if it is installed :

  $git --version

  ❖ Set Config Values

  $git config --global user.name “Anjali Tandel”

  $git config --global user.email “atandel3@horizon.csueastbay.edu”

  $git config --list

  ❖ Need Help?

  $git help config

  $git config --help

  ❖ Getting Started(Two Scenario)

  ➢ Have an existing project on local machine that you want to start tracking using git.

  ➢ There is an existing project remotely that you wanna start developing.

1 : You have existing project on local machine

Step 1: Initialize a repository from Existing code

$cd projectfolder

$ls -la → .project,calc.java,etc

$git init

$ls -la → .project,calc.java,.git,etc

Note: to stop tracking the project ,remove .git file from folder

Step 2: To ignore some files to upload on github

$git status → .project,calc.py

$touch .gitignore

$vim .gitignore

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*.py
.DS_Store
.project
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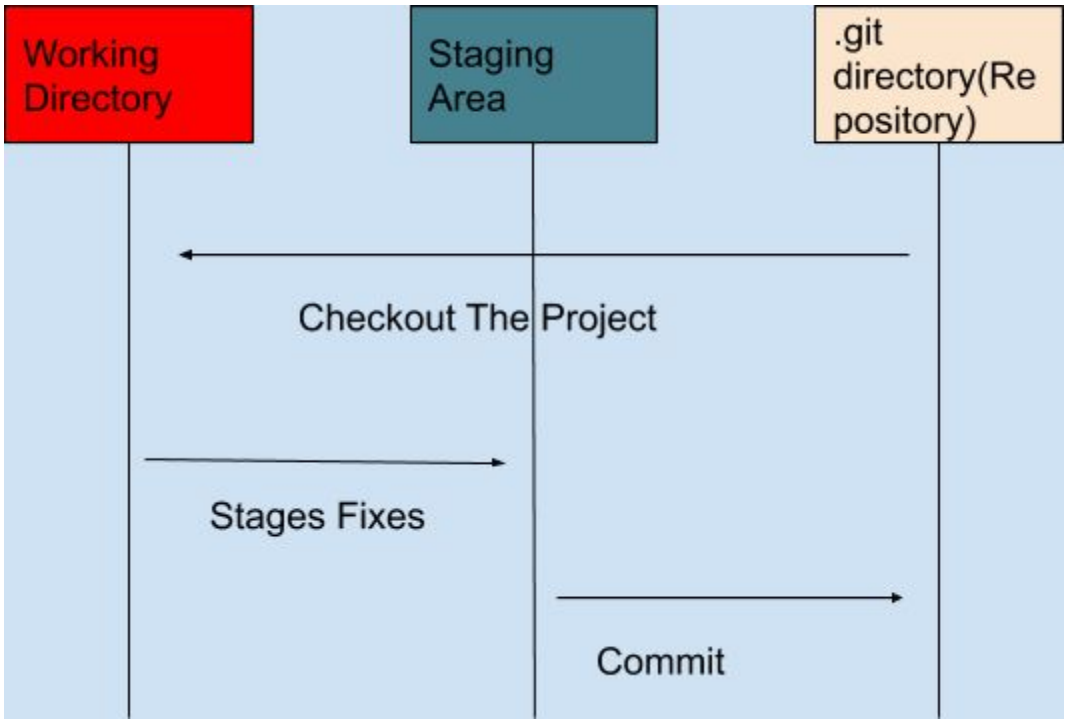
How Git Works?



Step 3: Add files to Staging Area.

$git add .gitignore

$git status

New file : .gitignore

Untracked files : calc.py

$git add -A (to add everything)

New files : .gitignore , calc.py

No Untracked files.

Step 4: To remove files from staging area.

$git reset calc.py(undo one step)

$git reset(to undo everything)

$git status

Step 5 : To commit the changes we made

$git add -A

$git commit -m “Added all files”

$git status

Working directory is clean

Step 6: to check the logs

$git log

2: We want to develop existing project remotely

Step 1: Cloning a remote Repo (to get the repository content in our local folder)

$git clone <url> <where you want to clone>

$git clone https://github.com/angelD25/FlexonWork.git .

(. means in the current directory)

$git ls -la

Step 2: Viewing information about remote repository

$git remote -v(provide the location/link of your repo)

origin https://github.com/angelD25/maven-demo.git (fetch)

origin https://github.com/angelD25/maven-demo.git (push)

$git branch -a(list all the branch in repo)

* master
  remotes/origin/HEAD -> origin/master
  remotes/origin/master

Step 3: Commiting changes to cloned repo

Change a file in local folder
$git diff (for checking the difference b/w local folder and repo)
$git status
$git add -A
$git commit -m “The Src folder is updated”

Step 4: Now Pushing our changes

Possibly , multiple developers can be pushing their changes to repo. So we also have to pull those changes and push our changes.

$git pull origin master (to pull all the changes)
$Solve the conflicts by (git add and git commit)
$git push origin master(to push your changes)

Common WorkFlow

❖ Create a Branch for Your Desired feature.

$git branch Branch1
$git branch(show all branches)
    Branch1
    *master
$git checkout Branch1(to work on Branch1)
$git branch
    *Branch1
    Master
Change something on local
$git add -A
$git commit -m “changes”
Push Branch to remote repo

$git push -u origin Branch1

$git branch -a (to see all the branches)

❖ Merge a Branch

$git checkout master

$git pull origin master

$git branch --merged(to see the branches that are merged already)

$git merge Branch1(to merge the Branch1 with master)

$git push origin master (to push the changes)

❖ Deleting a Branch

$git branch --merged

$git branch -d Branch1(to delete the branch)(locally)

$git branch -a

$git push origin --delete Branch1(delete it from remote repo)

$git branch -a