

# ***GIT-HUB***

1. Move to your project folder using **cd/d:**
2. To check git version type **git -version;**
3. If you want to send project to git-hub you first need to initiate it first time by running command **git init**
4. If you are on mac/ Linux terminal or using git bash then type **ls -a** to view directory files and folder including hidden files ;
5. After initiate git then run **git status** to check the status of files and folder
6. **git add <file name>** to add single file in staging area. A staging area is the area where you put those files which you want to push in your git-hub repository. And if you want to add all files and folder then run **git add .** it will put all the files and folder in staging area
7. After adding the files in staging area now make a commit. A commit tells others people what these changes are about. To add commit type **git commit -m 'msg'** -m flag means msg.
8. A very important and optional thing is generate ssh keys. To generate an ssh keys follow these steps,
  - ◆ **ls -al ~/.ssh** to find out if any key present.
  - ◆ If not type **ssh-keygen -t rsa -b 4096 -C '<email>'** and enter and enter and enter.
  - ◆ **id\_rsa** file contains private key don't give to anyone
  - ◆ Now type **eval "\$(ssh-agent -s)"** and it will generate agent id.
  - ◆ Now add id to rsa by typing **ssh-add ~/.ssh/id\_rsa.**
9. Manually compare files using command line.
  - For Window=> **FC <filename> <filename>**
  - For Mac & Linux => **diff -u <filename> <filename>**
10. These are different version control system like manual saving, Dropbox, Google docs, Wikipedia, git, SVN, CVS.
11. **git log** to view all the commit made in repository.
12. **git diff commit id ,commit id** to view difference in files a.
13. **git log -stat** gives the static of each file change at every commit.

## Staging area between working area and repository.

1. `git diff` without ids shows difference in working area and staging area.
2. `git diff --staged` shows difference in staged files and last commit.
3. `git reset --hard` to discard changes either in working directory or in staging area.

Caution: its irreversible because if there no made.

## Branches in GIT HUB:

1. `git branch` shows my current branch
2. `git branch <branch name>` create new branch with branch name.
3. `*(steric)` with branch means this branch currently check out.
4. `git check-out <branch name>` to switched to that branch.
5. `git log --graph --online <branch 1> <branch 2>` compare two branches.

*Note: --online to result shoter.*

## Merging Branches:

1. `git merge (branch 1) (branch 2)` it will merge into selected branch which I active .
2. `git show (commit id)` will show the changes between commit and its parent.
3. `git branch -d (branch name)` to delete a branch. It should be done after merging branch.

*Note: -d stand for del.*

4. `git remote, get remote -v` to get data from and push data to.