Git Course

\* Clone Existing Git Repository into local machine

1) create a local directory.

2)cmd -> **git clone git repo\_url** Clones a repository into a newly created directory, creates remote-tracking branches for each branch in the cloned repository (visible using git branch --remotes), and creates and checks out an initial branch that is forked from the cloned repository’s currently active branch.

3) After the clone, a plain git fetch without arguments will update all the remote-tracking branches, and a git pull without arguments will in addition merge the remote master branch into the current master branch

cmd- **git fetch & git pull**

<https://www.git-tower.com/learn/git/faq/difference-between-git-fetch-git-pull>

\*Create new git hub Repository

go to git hub and create a new repository there you can get the remote URL

1) create a local directory.

2) **git init** ->This command creates an empty Git repository - basically a .git directory with subdirectories for objects , refs/heads ,refs/tags, and template files. An initial HEAD file that references the HEAD of the master branch is also created.

3**) git add .** -> after copying all files into new local directory or you can add empty git repository into your existing folder using **git init**  Then execute **git add .** it will add all files

If you want to add a particular file then use **git add file\_name**

4) **git commit –m “log message”** -> creates a new commit containing the current contents and given log message describes the changes.

5) **git remote add origin remote\_url ->** by adding remote you can connect your local repository to github remote repository

6)**git push origin master** ->it will push all local files to git hub repository

origin-> your remote & master is your current working branch.

\*Create Git Branch

1) **git branch branch\_name** ->it will create a new local branch

2) **git checkout branch\_name** ->HEAD moves to given branch name

(HEAD is nothing but a pointer which pointes to git branches, HEAD pointing branch is our current working branch)

**or**

1)**git checkout –b branch\_name** ->it will create a new local branch and HEAD to the newly created branch.

(when we push the branch our local branch git will automatically create our local branch to remote branch)

\*Show list of branch and remote

1) **git branch –a** -> shows all branches

2) **git branch –r** ->shows all remote branches

3) **git branch - - merged** ->shows all merged branches

4) **git remote** ->shows all remote

\*Branch merging

1)first checkout to master branch

2)then use **git merge master branch\_name** -> it will merge the branch\_name branch into the master branch

\*Switch between branches

1) **git checkout branch\_name** ->switch to branch branch\_name.