**GIT Notes**

**Git:**

Git is a [free and open source](https://git-scm.com/about/free-and-open-source) distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

**GIT Init:**

The git init commandcreates a new Git repository. It can be used to convert an existing, unversioned project to a Git repository or initialize a new, empty repository.

**GIT Clone:**

Git clone is used tocopy an existing Git repository into a new local directory.

git clone repository\_url

**GIT Add:**

The git add command is used toadd file contents to the Index (Staging Area). This command updates the current content of the working tree to the staging area.

git add file\_name -Used to add a specific file.

git add . -Used to add all the files in the working directory.

**GIT Commit:**

It is used to record the changes in the repository. It is the next command after the [git add](https://www.javatpoint.com/git-add). Every commit contains the index data and the commit message.

git commit -m “message”

**GIT push:**

The push term refers to upload local repository content to a remote repository. Pushing is an act of transfer commits from your local repository to a remote repository.

git push origin main

**GIT Pull:**

The term pull is used to receive data from GitHub. It fetches and merges changes from the remote server to your working directory. The git pull command is used to pull a repository.

**GIT Branching:**

Git Branching in Git is a function that is used to create an independent, similar copy of the current repository for different usage requirements.

git branch new\_branch\_name

**GIT Merge:**

The primary use of git merge is to combine two branches. It is also used to merge multiple commits into one history.

git merge branch\_name

**Rebasing:**

 Rebase is an action in Git that allows you torewrite commits from one branch onto another branch. Essentially, Git is deleting commits from one branch and adding them onto another.

git rebase branch\_name

**Stashing:**

The git stash command enables you to switch branches without committing the current branch.

git stash save "**<**Stashing Message**>**"

**Tagging:**

Tags are references showing particular points in a Git history. The main function of tagging is to capture a point in a Git history that marks version release.

git tag <name-of-tag>