Git and GitHub

- By Kriti Bhatia

Linus Torvalds is the legend who created the Git Version Control System.
Well, Git means an unpleasant person, esp a man. :-D

Repository
As the word suggests, it is a place to store your things. Some people call it a repo.

Staging area
According to the Cambridge dictionary, a staging area means a place where people gather before going somewhere or doing something. In Git, the staging area is where you store your files temporarily before committing.
git add <file_name>
git add . (Adds all the files in the directory to the staging area.)

Commit
According to lexico.com (powered by Oxford), commit means transfer something to (a state or place where it can be kept or preserved).
In Git, when you commit, you transfer your things from the staging area to Git. :-D
git commit -m "[message]"

Branch
We know what a branch is, literally. In Git, we create branches to experiment with the project. We can test our ideas and segregate new features with the help of branches.
git branch (To view the branches in a repo. An asterisk symbol * is displayed with the current branch.)
git branch [branch-name]

Fork
A fork is a feature of GitHub and not git. According to the Cambridge dictionary, fork means the place where a single thing divides into two or more parts, or one of the parts. But in GitHub, it is sometimes used in place of branches to facilitate some processes. Forking in Git is copying a project of another individual. You can then edit the project and send a pull request. If it gets approved, you will also be one of the contributors to the project. :-D :-D

Stash
According to lexico.com (powered by Oxford), stash means to store (something) safely in a hidden or secret place. In Git, stash stores work temporarily. Suppose you do not wish to commit now and want to see another branch. Without commit, you cannot visit another branch. So here is an alternative. You can store your work temporarily using the git stash command.
git stash

git stash list (displays the list in the stash)
git stash pop (pops from the top of the stack)
git stash drop

git log
According to lexico.com (powered by Oxford), log means to make a systematic recording of (events, observations, or measurements). In Git, with the help of the git log command, you can check the history of what you have done so far.
git log

Push
Allows you to push your commits from a local Git repository to a remote Repository.
git push [repository-name] [master]
Master, as the name suggests, is the main branch. Now, Git has replaced the master branch with the main branch.

Pull
Allows you to update the local repository from the remote repository/branch.
git pull [remote-repository]
It is a combination of git fetch and git merge.

Tag
The tag provides a label to the commit.
To create an annotated tag, use the command given below.
git tag -a [tag-name] -m "[tag-message]"

Merge
Allows you to merge branches into one.
git merge [branch]

Clone
As the name suggests, it clones repository from hosted location via URL
git clone [url]

Rebase
Rewrites history, similar to merge.
git rebase [branch]

git checkout
Like when you leave the hotel, you check out. Similarly, when you checkout in Git, you leave that branch and switch to another branch.
git checkout [branch]
git checkout -b [new-branch] (creates and switch to the new branch)

So, this is how I like to learn things. If I know the meaning or the origin of the words used, I relish learning about the thing I am studying. This way, I improve my English (which I like a lot), also things stay in my mind for a prolonged period. :-D