Git

1) git init

- git init [repository name]
if we have to navigate to our project directory and type the command git init to initialize a Git repository for our local project folder.

2) git add

- git add [file(s) name]
this will add specified file(s) into the Git repository.

3) git Commit

- git commit -m "message"

this command records or snapshots files permanently in the version history.

4) git status

- git status

this command will show the modified status of an existing file & file addition status of a new file, if any, that has to be committed.

5) git diff

This command shows the file differences which are not yet staged.

6) git reset

git reset [file]

This command unstages the files, but it preserves the file contents

7) ~~git status~~ git push

git push [variable name] master

This command sends the committed changes of master branch to your remote repository.

8) git pull

git pull [Repository Link]

This command fetches & merges changes on the remote server to your working directory.

9) git log

We can see all the previous commits with the most recent commit appear first.

git log

10) git rm
git rm [file]

this command deletes the file from your working directory & stages the deletion.

11) git config
git config -global user.name "[name]"

this command sets the author name and email address respectively to be used with your commit

12) git add *

this command adds one or more to the staging area.

13) git branch

git branch [branch name]

this command creates a new branch.

Git is a free and open source distributed version control system designed to handle everything from small to very large projects with speed & effi

advantages of Git

- performance
- security
- flexibility
- wide adoptance
- quality open source project

disadvantages

- Github does not come with private repositories
- When it comes to high value intellectual property you happe to be putting everything in of github and anyone having a login with many websites & this come with a chance of security breaches & its targeted contantly.

Characteristics of GIT

- They are free & open-source with multiple backups & added staging area.
- Git has last commit & revert options for unnecessary changes.
- it has a good feature called Restore delete a commit, which is essential in larger projects.
- It have a good security protection against the alteration of files & maintains the authentic history of source.

Applications of Git

- GIT in product managment - they give up more frequent customer feedback and updates.
- It can be used as a graphical application.
- It helps in building real-time web applications & its popularly used in Android applications as well as many commercial organizations.