## Git & Github

Git is a tool used to store the history of files and its changes. (version control system).

Github is a cloud based hosting service to manage git repositories.

Repasitory -> Folder

git init -> Initializes (creates) an empty git folder. (hidden) git status -> 5 hows us the tracked and untracked files.

git add. -> add all the files to be committed (Recorded in history).

git add [file name] -> add files individually. (add to stage).

git commit -m "your message" -> commit or save the staged files into git folder.

git log -> shows history of commits.

git reset [hashcode] -> resets to the hashcode commit & deletes the above or previous commits.

git stash -> saves uncommitted changes for later use, and reverts back to previous commit.

git stash pop -> brings back the uncommitted changes saved files from backstage.

git remote add origin [url] -> links the repository in which we can save files in git folder.

git remote -v -> shows all the url's attached to the folder.

git push [url name] [branch name] -> pushes the committed files into the repository.

master is the head or main branch.

git branch (name) -> creates a new branch.

git checkout (branch name) -> makes this branch the head branch.

all the commits will be added to head branch
git merge (branch name) -> merges this branch to the head or
main branch.

Fork -> creates a copy of the original file into our own folder.

git clone (url) -> gets a copy of the file into our system.

git remote add upstream (url) -> links to the original repository

from which we forked a copy.

pull request - a request to merge a borranch to the original repository branch.

Only one pull request per branch.

git push origin (branch name) -f -> force push (as online repository already has these commits)

git fetch --all --prune -> fetches all the files or changes from the upstream repository even deleted ones.

git reset -- hard upstream/main -> merges my main with the fetched folder or file.

git pull upstream main [fetch and murge in github]

rebase -i [hashcode] -> command to squash multiple commits to one.

5 → squashes or merges this commit with above pick option. pick -> commit in which bellow commits will merge.

touch ignore.

touch gitignore -> creates a gitignore file in the folder file named in this file will be ignored while committing.

git revert [hashcode] -> reverts or goes back to the selected hashcode commit.