Git Understanding

Git and GitHub

Git

- Git is a version control system (like a time-traveling machine) that remembers every change we have made. So we can always go back to the previous versions if we want to.
- Git is a tool that helps us to keep track of changes in our file
- It is especially helpful if multiple people are working on the same project. Everyone can just push in the same repo and pull from it if they want the latest version

GitHub

- GitHub is like a big library where people can share their projects so that everyone can see, use, and even help to improve them.
- GitHub also has features like:
  - Commit History
  - Pull request with code review and comments
  - Issue tracking, etc.

Initializing and pushing a git repository

- git init - to initialize the current folder as a local repository
- git config –global user.name “<user name>” - to set username
- git config –global user.email “<user email>” - to set email
- git status- to check the status, i.e. if the file is in the staging area or not
- git branch - to check which branch we are on
- git checkout <branch name> - to change the branch as per your choice
- git add <file name> - to add a single file
- git add . - to add all the files
- git commit -m “<short and precise message>” - to commit
- git log - to see a log of all the commits
- git push -u origin <branch> - to push changes the first time
- git push - to push changes to the remote branch
- git merge <branch> - to merge the branch with the current active branch

Rules for Committing files:

- Commit Related Changes
- Commit Often

- Don’t commit Half-DOne Work
- Test your code before you commit
- Write good commit messages
- Use branches
- Agree on a workflow