

Git and GitHub

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1 Git

Version Control system is a tool that helps to track changes in code

Git is a version control system.

It is Popular, free, open source ,fast and scalable.

In other words Git helps to track the history, collaborate with others.

It lets you to keep multiple versions of files.(so we never losse our files)

2 GitHub

Website that allows developers to store and manage their code using Git.

When the project is complex then GitHub comes into the picture. It allows all the team to work together by saving their changes.

3 Needed Commands:

```
git init - Initialize a new repo  
git clone <url> - Cloning our Git repository with our folder.  
git status - check changes  
git add <file> - to add one particular file into our repo  
git add . - to add all the files in the folder into repo  
git commit -m "message" - to commit staged changes  
git commit -am "message" - Stage commit modified files  
git branch - List branches  
git branch <name> - Create branch  
git checkout <branch> - Switch branch  
git checkout -b <name> - Create switch branch  
git merge <branch> - Merge a branch  
git branch -d <branch> - Delete branch  
git remote -v Show remotes  
git remote add origin <url> Add remote repo  
git push -u origin main Push local main branch  
git push origin <branch> Push a branch
```

```
git pull origin <branch> Fetch merge
git log Show commit history
git log --oneline Compact history
git diff Show unstaged changes
git reset <file> Unstage file
git checkout -<file> Discard changes
git revert <commit> Revert a commit
```