**What is Git?**

Git is a version control system (VCS) software that keeps track of changes in my file so that its history can be maintained and saved.

**What is GitHub?**

GitHub is a web-based hosting service that stores the git software changes made in a file on the server so anyone can see and make changes.

Better git commit messages:- [https://github.com/joelparkerhenderson/git-commit-message?tab=readme-ov-file#top-priorities](https://github.com/joelparkerhenderson/git-commit-message?tab=readme-ov-file%23top-priorities)

Git and Github Reference:- <https://docs.chaicode.com/git-and-github>

**VS Code Extension** – Git graph

------------------------------- **Comprehensive List of Git Commands** ---------------------------------

git -v

git –version

git config --global user.email [your-email@example.com](mailto:your-email@example.com)

git config --global user.name "Your Name"

git config --list

git init

git status

git add .

git add <file\_name>

git commit -m “<commit\_message>”

git commit -am “<commit\_message>”

git commit -a -m “<commit\_message>” /\* direct commit without add file in staging area \*/

git log

git log –-oneline

git diff <hash\_id\_1> <hash\_id\_2> /\* compare both changes \*/

git diff –staged

git remote add origin <github\_repo\_link>

git remote -v

git clone <project\_url>

git push -u origin main

git push

git reset <hash\_id> /\* change in staging area \*/

git reset –-hard <hash\_id> /\* changes lost \*/

git branch

git branch <branch\_name>

git checkout <branch\_name>

git checkout -b <branch\_name> /\* create branch and checkout both in one line command \*/

git checkout main

git merge <branch\_name>

git merge –-squash <branch\_name> /\* Hybrid approach \*/

git rebase main /\* Timeline rewrite \*/

main - single source truth

every dev takes a new branch from main

you can indep work in your own branch

how to keep your branch in sync with main? – rebase main

what should be the best way to merge your branch to main – squade merge

git is case sensitive

U – untracked file

M – modified file

A –

.git folder hidden

Pwd – present working directory

cmd -h / cmd -a

cat – file contents print on terminal

cat <file.txt>

git cat-file <file\_name>

git cat-file -p <file\_name> /\* p = content print on terminal \*/

git cat-file -t <file\_name> /\* t = type \*/

git cat-file -s <file\_name> /\* s = size \*/

.gitignore – inside mension file not push on github

Touch .gitignore / code .gitignore – for open file in code editor

