

Lesson 3 - Git and GitHub

What is Version Control?

The management of changes to documents, computer programs, large web sites, and other collections of information. **Git** is a free and open-source version control system.

Git vs GitHub?

Git is the tool that enables change tracking, GitHub is an online website that lets you host the repositories that you want to collaborate on and track.

Git Commands

clone – Copy remote repository from GitHub etc into a folder on your local machine.

add – track your files and changes in git.

commit – save your files in git.

push – upload git commits to a remote repo, like GitHub.

pull – Download changes from remote repo to your local machine, the opposite of push.

init – initialize a git repository

How to Create a new local repository and add it to GitHub?

1. Initialize your local repository. In your terminal, type

```
git init
```

2. Add changes to git

```
git add .
```

3. Commit changes in git

```
git commit -m "commit message"
```

4. Create a repository on GitHub and copy its HTTPS link

5. Add the remote HTTP link to your local repository (below sample link is given)

```
git remote add origin https://github.com/Amadkazmi/helloworld.git
```

6. Push changes to remote

```
git push origin main
```