GitHub is a website that helps people work on and share code. It's built around a tool called Git, which tracks changes in your code over time. With GitHub, you can:

1. **Share Code**: Upload your code so others can see it or contribute to it.
2. **Work Together**: Collaborate with others by making changes and merging them into the main project.
3. **Track Changes**: See the history of changes to your code and who made them.
4. **Discuss and Review**: Comment on code and review changes before they're finalized.

**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

**GitHub**

* Website that allows developers to store and manage their code using Git.
* <https://github.com>

**GitHub Account**

* Create a new repository: learn\_GitHub
* Make our first commit

**Setting up git**

* Visual Studio Code
* Windows (Git bash)
* Mac (Terminal)
* git - - version

**Configuring Git**

* git config - -global user.name “<write your user name>”
* git config - - global user.email “<write your email>”
* git config - - list

**Clone & Status**

* Clone – Cloning a repository on our local machine

git clone <url link>

* Status – displays the state of the code

git status

**Intialized Git**

* Intialized Git – To initialize a Git repository, you can use the command git init. This command creates a hidden directory called .git

git init

**Add & Commit**

* add – adds new or changed files in your working directory to the Git staging area.

Git add <file name>

git add .

* Commit – it is the record of change

git commit -m “some message”

**Branch**

* Branch – This means that “main” (or “master”) can be seen as a repository’s “default” branch.

Git branch -M main

**Remote Repository URL**

* The `git remote add origin` command is used to add a remote repository to your local Git repository

git remote add origin <url link>

**Push Command**

* Push – upload local repo content to remote repo

git push origin main

**Init Command**

* Init – used to create a new git repo

git init

git remote add origin <link>

git remote -V (to verify remote)

git branch (to check branch)

git branch -M main (to rename branch)

git push origin main

**Branch Commands**

git branch (to check branch)

git branch -M main (to rename branch)

git checkout <branch name> (to navigate)

git checkout -b <new branch name> (to create new branch)

git branch -d <branch name> (to delete branch)

**Merging Code**

git diff <branch name> (to compare commits, branches, files & more)

git merge <branch name> (to merge 2 branches)

**Pull Command**

* Pull – used to fetch and download content from a remote repo and immediately update the local repo to match that content

git pull origin main