**GIT :** (Global Information Tracker)

Git is **a distributed version control system** that tracks changes in any set of computer files, usually used for coordinating work among programmers who are collaboratively developing source code during software development.

**GIT HUB :**

It is a **developer platform** that allows developers to create, store, manage and share their code.

It uses Git software, providing the distributed version control of Git .

Also used for access control, bug tracking, software feature requests, task management, continuous integration.

How do we use git?

Installing GIT : Download the git software from the web

After downloading and installing we check whether it is installed or not using the following commands in cmd: >>git –version (to check the version)

To view all the git config setting options : >>git config

To Configure our User account use commands as follows :

For username : >>git config --global user.name “gitaafu”

For email: >>git config –global user.email [aafreenwork51@gmail.com](mailto:aafreenwork51@gmail.com)

To view our configured list :>>git config --list (display user name and email)

how to set up a repository (repo) under Git version control?

A Git repository is a virtual storage of your project. It allows you to save versions of your code, which you can access when needed.

To create a new repo, you'll use the git init command.

Executing this command will create a new .git subdirectory in your current working directory. This will also create a new main branch.

Versioning an existing project with a new git repository : >>git init <project directory>

CLONING A REPOSITORY :

If a project has already been set up in a central repository, the clone command is the most common way for users to obtain a local development clone.

“git clone” is used to create a copy or clone of remote repositories.

Its primary advantage lies in the ability to create local copies of repositories, allowing developers to work on projects without interfering with the work of others.

>>git clone <repo url>

saving changes to the repository :

Now that you have a repository cloned or initialized, you can commit file version changes to it. The following example assumes you have set up a project at /path/to/project. The steps being taken in this example are:

* Change directories to /path/to/project
* Create a new file CommitTest.txt with contents ~"test content for git tutorial"~
* git add CommitTest.txt to the repository staging area
* Create a new commit with a message describing what work was done in the commit
* cd /path/to/project
* echo "test content for git tutorial" >> CommitTest.txt
* git add CommitTest.txt
* git commit -m "added CommitTest.txt to the repo"