

Git

Git as a Version Control System

Git is a distributed Version Control System where each user can make changes to an entire repository on their system. It uses Command line and with git it is easy to undo changes back and forth with a precise explanation of changes that are made. It has the ability of:-

- ① Keeping a track of the changes, i.e., different versions of the same file.
- ② It also keeps a record of all files present in a project.
- ③ Comparing and analyzing different codes with a detailed explanation.

The basic step to start working in a Git environment is to have local repository and a remote repository.

Local Repository

A local repository is a path or directory created by you on a local Computer that is working directory. You write your code in this repository which is private to you until you push it to the remote repository.

Remote Repository

Remote repository is a public directory or is a public platform to host your website such as Github, Bitbucket. Using Git, one could easily push a piece of code or an entire project to a remote repository.

What is github?

GitHub is a provider of Internet hosting of software development and version control using git. It offers the distributed version control and source code management functionality of Git, plus its own features. It provides access control and several collaboration features such as bug tracking, feature requests, task management, continuous integration and wikis for every project.

What is working directory and staging area?

In computing, it is a directory of hierarchical file system. It is dynamically associated with each process. It is sometimes called current working directory.

As stated in the git documentation the working directory is a single checkout

of the project this essentially means if you check out a branch and are sat on a particular commit.

Staging area

It is like a rough draft space, it's where you can git add the version of a file or multiple files that we want to save in your next commit.

It is a file that are going to be a part of next commit, which lets git, know what changes in the file are going to occur for the next commit.