**Git Hub:**

* GitHub is an immense platform for code hosting. It supports version controlling and collaboration and allows developers to work together on projects. It offers both distributed version control and source code management (SCM) functionality of Git.

Essential components of the GitHub are:

* Repositories
* Branches
* Commits
* Pull Requests
* Git (the version control tool GitHub is built on)

Advantages of Git:

* It is easy to contribute to open-source projects via GitHub.
* It helps to create an excellent document.
* You can attract the recruiter by showing off your work. If you have a profile on GitHub, you will have a higher chance of being recruited.
* It allows your work to get out there in front of the public.
* You can track changes in your code across versions.

Features:

GitHub is a place where programmers and designers work together. They collaborate, contribute, and fix bugs together. It hosts plenty of open-source projects and codes of various programming languages.

Two version control systems:

Centralized Control Version System (CVCS):

* In CVCS, the central server stores all the data. This central server enables team collaboration.
* It just contains a single repository, and each user gets their working copy.

Distributed Control Version System (DVCS):

* In DVCS, there is no need to store the entire data on our local repository. Instead, we can have a clone of the remote repository to the local.
* We can also have a full snapshot of the project history.
* **Push: -** Push operation copies the changes from a local repository server to a remote or central repo. It is used to store changes permanently into the git repository.
* **Pull:** - Pull operation copies the changes from a remote repository to a local machine.

**Cloning in repository:**

* When you clone a repository, you copy the repository from GitHub.com to your local machine. Cloning a repository pulls down a full copy of all the repository data that GitHub.com has at that point in time, including all versions of every file and folder for the project.

**Collaborators in GitHub:**

Collaborator access for a repository owned by a personal account. Collaborators on a personal repository can pull (read) the contents of the repository and push (write) changes to the repository.