distributed version control

create a repository, add a file to it, and commit your changes.

using branches and merging your changes to the main branch

Roles:

* Software engineers
* Application developers
* Data scientists
* Data engineers

Git has some web host service:

* GitHub
* Git Lab
* Bitbucket
* Beanstock

A **fork** is a copy of a repository.

A **pull request** is how you request that someone review and approve your changes before they become final.

A **working directory** contains the files and subdirectories on your computer that are associated with a Git repository.

**Commit** is a snapshot of the project's current state at a specific point in time a long with a description of the changes made.

A **branch** is a separate line of development that allows you to work on features or fixes independently.

**Merging** combines changes from one branch into another, typically merging a **feature branch** into the **main branch**.

**Cloning** creates a local copy of a remote Git repository on your computer

GitHub is an online hosting service for Git repositories.

**A Repository** is:

* A data structure for storing documents including application source code.
* A repository can track and maintain version-control.

With **GitLab**, developers can:

* Collaborate, reviewing code, making comments and helping to improve each other’s code.
* Work from their own local copy of the code.
* Branch and merge code when required.
* Streamline testing and delivery with Built-in Continuous Integration (CI) and ContinuousDelivery (CD)

**GitHub Repositories:**