

Main Git and GitHub Operations and Terms

Git repository: a folder whose contents are tracked by Git. Changes within this folder can be saved to Git's history. Git repositories are located on users' computers and are therefore also called local repositories.

GitHub repository: a Git repository hosted on GitHub. GitHub repositories can be set to receive changes from local repositories, so that multiple users can work on the same project by connecting their local repositories to the GitHub repository, which is also called a remote or central repository.

Initialize a local repository: an operation that creates a local Git repository on a computer.

Clone a remote repository: an operation that creates a local Git repository by copying a remote repository (e.g., one hosted on GitHub).

Add changes: an operation that adds a changed version of a file to Git's staging area. The fact that only changes that are added to the staging area can be committed allows for control over what is saved in Git's history. For instance, if a user wants to make changes to file X, but not changes to File Z, part of a project's history, X can be added to the staging area without adding Z.

Commit changes: an operation that creates a snapshot of the project's current state by saving changes from the staging area to Git's history. A commit can include a short message describing the commit's purpose.

Git history: a list of all the commits made in the repository.

Checkout: switch to an earlier version of the project by "checking it out" from Git's history.

Push committed changes: an operation that sends changes made on a user's local repository to the central (remote) repository.

Pull changes: an operation that brings changes from the central (remote) repository to a user's local repository, to keep it up-to-date with other collaborators' changes.

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