

it is a version control system that allows you to manage changes in code.

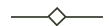


You can use Git on your computer without an Internet connection. Git stores change history locally and allows you to manage the development process. GitHub is a web service that uses Git to store and manage projects online.





safety



Before saving any file, Git calculates a checksum, and this checksum becomes the index of that file. This means that it is impossible to change the contents of a file or directory without Git knowing about it. This functionality is built into the very foundation of Git, and is an important part of its philosophy. If information gets lost in transit or corrupted on disk, Git will always detect it. The mechanism Git uses to calculate checksums is called a SHA-1 hash. It is a string of 40 hexadecimal characters (0-9 and a-f) that Git calculates based on the contents of a file or directory structure.





Example of working with Git



You make changes to files in your working directory.

Stage files by adding snapshots of them to the staging area.

Commit, which takes the staging files from the index and places them in the Git directory for permanent storage.

If the working version of a file matches the version in the Git directory, the file is considered committed. If a file is changed but added to the staging area, it is staged. If a file is changed after being unloaded from the database but has not been staged, it is considered changed.



- Git was created by the same person who created Linux
- The word "git" in English slang can mean something like
 "weirdo" or even "arrogant person". Linus Torvalds
 humorously stated that he named the project Git because
 the word perfectly describes it.
- Git is the basis for platforms such as GitHub, GitLab, and Bitbucket. Most large open-source and commercial projects (e.g., Google, Microsoft, Facebook software development) use Git.

THANK YOU FOR YOUR ATTENTION

