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What is Git?

Git is a popular version control system. It was created by Linus Torvalds in 2005, and has been maintained by Junio Hamano since then.

It is used for:

* Tracking code changes
* Tracking who made changes
* Coding collaboration

What does Git do?

* Manage projects with **Repositories**
* **Clone** a project to work on a local copy
* Control and track changes with **Staging** and **Committing**
* **Branch** and **Merge** to allow for work on different parts and versions of a project
* **Pull** the latest version of the project to a local copy
* **Push** local updates to the main project

Working with Git

* Initialize Git on a folder, making it a **Repository**
* Git now creates a hidden folder to keep track of changes in that folder
* When a file is changed, added or deleted, it is considered **modified**
* You select the modified files you want to **Stage**
* The **Staged** files are **Committed**, which prompts Git to store a **permanent** snapshot of the files
* Git allows you to see the full history of every commit.
* You can revert back to any previous commit.
* Git does not store a separate copy of every file in every commit, but keeps track of changes made in each commit!

Change Platform:

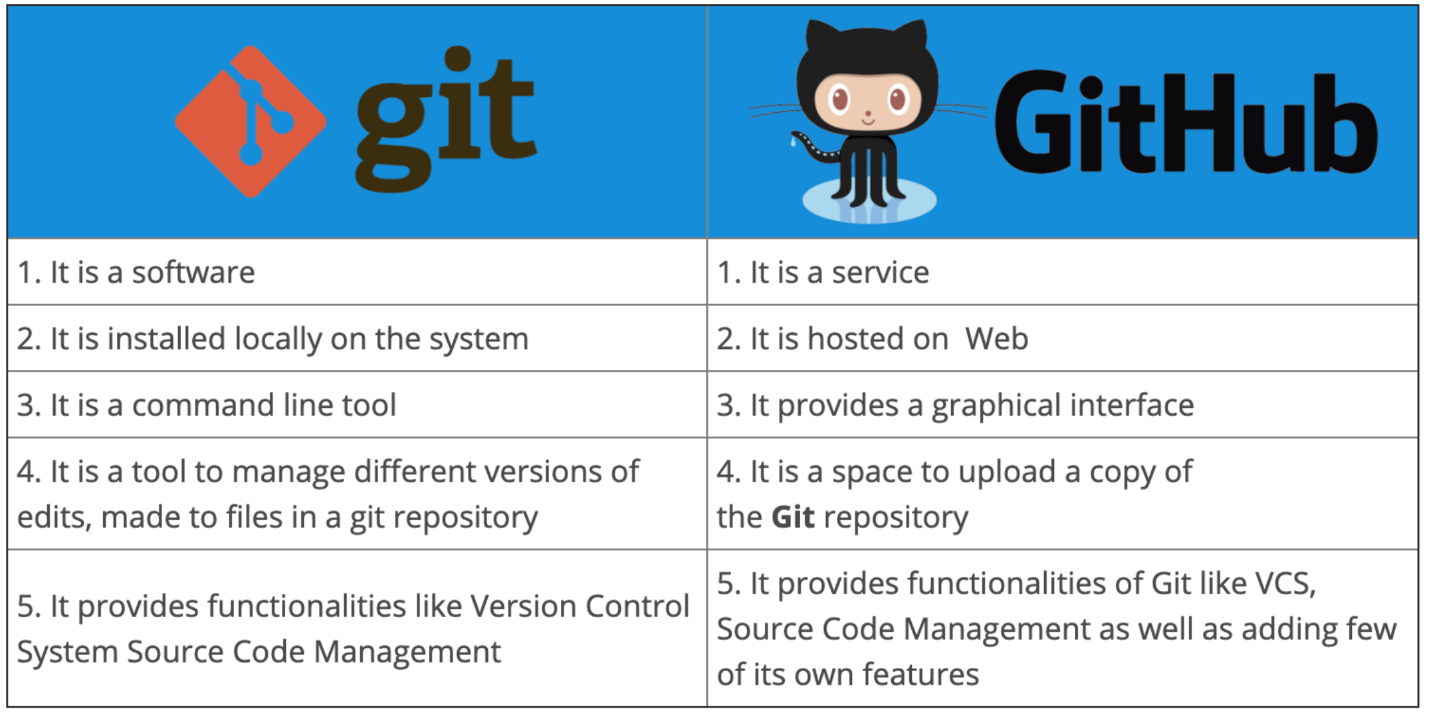
[[](https://www.w3schools.com/git/git_intro.asp?remote=github)GitHub](https://www.w3schools.com/git/git_intro.asp?remote=github)[[](https://www.w3schools.com/git/git_intro.asp?remote=bitbucket)Bitbucket](https://www.w3schools.com/git/git_intro.asp?remote=bitbucket)[GitLab](https://www.w3schools.com/git/git_intro.asp?remote=gitlab)

Why Git?

* Over 70% of developers use Git!
* Developers can work together from anywhere in the world.
* Developers can see the full history of the project.
* Developers can revert to earlier versions of a project.

What is GitHub?

* Git is not the same as GitHub.
* GitHub makes tools that use Git.
* GitHub is the largest host of source code in the world, and has been owned by Microsoft since 2018.



**History**

[[edit](https://en.wikipedia.org/w/index.php?title=GitHub&action=edit&section=5)]

The GitHub service was developed by [Chris Wanstrath](https://en.wikipedia.org/wiki/Chris_Wanstrath), [P. J. Hyett](https://en.wikipedia.org/wiki/P._J._Hyett), [Tom Preston-Werner](https://en.wikipedia.org/wiki/Tom_Preston-Werner), and Scott Chacon using [Ruby on Rails](https://en.wikipedia.org/wiki/Ruby_on_Rails), and started in February 2008. The company, GitHub, Inc., was formed in 2007 and is located in San Francisco.[[29]](https://en.wikipedia.org/wiki/GitHub#cite_note-29)

[](https://en.wikipedia.org/wiki/File:GithubAWSTorontoSummit.jpg)GitHub at AWS Summit[](https://en.wikipedia.org/wiki/File:Mapping_collaborative_software_on_GitHub.png)The shading of the map illustrates the number of users as a proportion of each country's [Internet population](https://en.wikipedia.org/wiki/Internet_population). The circular charts surrounding the two hemispheres depict the total number of GitHub users (left) and commits (right) per country.

On February 24, 2009, GitHub announced that within the first year of being online, GitHub had accumulated over 46,000 public repositories, 17,000 of which were formed in the previous month. At that time, about 6,200 repositories had been [forked](https://en.wikipedia.org/wiki/Fork_(software_development)) at least once, and 4,600 had been merged.

That same year, the site was used by over 100,000 users, according to GitHub,[[30]](https://en.wikipedia.org/wiki/GitHub#cite_note-30) and had grown to host 90,000 unique public repositories, 12,000 having been forked at least once, for a total of 135,000 repositories.[[31]](https://en.wikipedia.org/wiki/GitHub#cite_note-31)

In 2010, GitHub was hosting 1 million repositories.[[32]](https://en.wikipedia.org/wiki/GitHub#cite_note-32) A year later, this number doubled.[[33]](https://en.wikipedia.org/wiki/GitHub#cite_note-33) [ReadWriteWeb](https://en.wikipedia.org/wiki/ReadWriteWeb" \o "ReadWriteWeb) reported that GitHub had surpassed [SourceForge](https://en.wikipedia.org/wiki/SourceForge" \o "SourceForge) and [Google Code](https://en.wikipedia.org/wiki/Google_Code) in total number of commits for the period of January to May 2011.[[34]](https://en.wikipedia.org/wiki/GitHub#cite_note-34) On January 16, 2013, GitHub passed the 3 million users mark and was then hosting more than 5 million repositories.[[35]](https://en.wikipedia.org/wiki/GitHub#cite_note-35) By the end of the year, the number of repositories was twice as great, reaching 10 million repositories.[[36]](https://en.wikipedia.org/wiki/GitHub#cite_note-36)

In 2015, GitHub opened an office in Japan, its first outside of the U.S.[[37]](https://en.wikipedia.org/wiki/GitHub#cite_note-37)

On February 28, 2018, GitHub fell victim to the third-largest [distributed denial-of-service](https://en.wikipedia.org/wiki/Distributed_denial-of-service) (DDoS) attack in history, with incoming traffic reaching a peak of about 1.35 terabits per second.[[38]](https://en.wikipedia.org/wiki/GitHub#cite_note-DDOS-38)

On June 19, 2018, GitHub expanded its GitHub Education by offering free education bundles to all schools.