GitHub is a web-based hosting system that hosts Git repositories. Git is a version control system, created by Linus Torvalds in 2005 in order to develop the Linux kernel. It allows a programmer to manage their source code history effectively, but can also be used for other types of files, such as Word documents or PowerPoint presentations. GitHub was developed by Chris Wanstrath, PJ Hyett, and Tom Preston-Werner in February 2008, and used the technology of Torvalds’ Git in order to create a web based hosting system. What made GitHub so revolutionary was the fact that it used a difficult to use technology (Git) and turned it into a user-friendly system, hosting code on the cloud. Today, GitHub is the largest web-based version control hosting service, with a user count far exceeding GitLab and Bitbucket. The reason to use GitHub over similar platforms is the fact that the GitHub community is so large, with a huge active developer count. This means collaboration among developers can be much more common, leading to a more productive ecosystem.

Repository: a folder for a project on GitHub, containing all of the files and each file’s revision history

Commit: (git commit [commit\_name]) records a snapshot of all the files in a github directory, like a giant copy and paste, but better

Push: (git push [alias] [branch]) Uploads all local branch commits to GitHub

Branch: (git branch [name\_of\_new\_branch]) pointers to a specific commit

Fork: a copy of a repository, allowing you to freely experiment without affecting the original project

Merge: (git merge [branch\_to\_be\_merged]) creates a special commit that has two unique parents, “I want to include all the work from this parent over here and this one over here, and the set of all their parents.”

Clone: (git clone [url]) Downloads a project and its entire version history

Pull: (git pull) Downloads bookmark history and incorporates changes

Pull request: lets you tell others about changes you pushed to a branch in a repository on GitHub