

Brian Cassidy

CMP 263

Prof. Tirrito

Github in Web Development

Github is a powerful platform for developers and is often an integral tool in the development process. Created in 2008, Github is a widely used web-based platform for version control management and collaboration on coding projects. Github utilizes Git, a free, and open-source version control system used to track changes in computer files, to host git repositories that contain files as well as the history of changes made to a project (Perveez). Git is the software. Github is the website that is hosting the git repositories. This report will explain the uses of Github in a web development workflow.

Github's prominent feature is its ease to allow developers to collaborate with one another. One of Github's most notable is its ability to "fork" – copying a repository from one user's account to another (Finley). This allows someone to access and modify someone else's code project under their own account. Once done, they can then share the changes they made with the original owner/author through what is called a "pull request". If the original author chooses, they can then merge the newly proposed code with the original. These three features are what make Github convenient for developers.

Another useful feature of Github is its use of repositories. These repositories contain all the files and the history of changes made to a project. Repositories allow developers to store code in the cloud, collaborate with teammates, share code, track changes, and back up their work (About Repositories). This feature is extremely useful because it allows developers to have a history of all the previous versions of a project.

This can allow a developer to test new ideas on a code while always being able to revert back to the previous version if needed. A repository can be made public or private (About Repositories).

Since its creation in 2008 Github has grown and continues to be one of the most useful platforms for web developers. Today the Github ecosystem consists of numerous features such as Github Copilot, Github Actions, Github Pages, and more. These sub platforms each have their own specific functions tailored to a particular part of the development process in which they focus on. Copilot is an AI coding assistant that will help you write code more efficiently (What Is Github Copilot?). Github Actions is a tool that allows you to automate tasks within your workflow (Understanding Github Actions - Github Enterprise Cloud Docs.). Github Pages lets you host a static website directly from its repositories, for free (Quickstart for GitHub Pages.). As the landscape of web development grows and changes with the advancements in technology so does Github and its ecosystem.

Work Cited

“About Repositories.” *GitHub Docs*, Github, docs.github.com/en/repositories/creating-and-managing-repositories/about-repositories. Accessed 9 Apr. 2025.

Finley, Klint. “What Exactly Is Github Anyway?” *TechCrunch*, 14 July 2012, techcrunch.com/2012/07/14/what-exactly-is-github-anyway/.

Perveez, Sayeda Haifa. “What Is Git: Features, Commands, Branch and Workflow in Git.” *Simplilearn.Com*, Simplilearn, 25 Mar. 2025, www.simplilearn.com/tutorials/git-tutorial/what-is-git#:~:text=Git%20is%20a%20version%20control,its%20thousands%20of%20parallel%20branches.

“Quickstart for GitHub Pages.” *GitHub Docs*, docs.github.com/en/pages/quickstart. Accessed 9 Apr. 2025.

“Understanding Github Actions - Github Enterprise Cloud Docs.” *GitHub Docs*, docs.github.com/en/enterprise-cloud@latest/actions/about-github-actions/understanding-github-actions. Accessed 9 Apr. 2025.

“What Is Github Copilot?” *GitHub Docs*, docs.github.com/en/copilot/about-github-copilot/what-is-github-copilot. Accessed 9 Apr. 2025.