Name: Daniel Nguyen

Date: April 25, 2025

Assignment: Using Git – Week 12

GitHub Link: https://github.com/deesonn

GitHub is a platform for using Git, which is a version control system. It’s mainly used by developers to host, manage, and track changes to their code. It contains many more features or capabilities beyond the scope of this assignment. GitHub gives users the ability to collaborate or individually where they can contribute to software development projects, manage their workflows, and make changes quickly and effectively. It’s basically a hub platform for open-source or private-source projects and is used in today’s corporate and academic worlds alike.

GitHub gives users the ability to create what we called repositories where they can store their project code and any additional related files. Developers can “clone” the repositories or “repo” for short to their local machines, work on them, and then “push” their changes back to GitHub. This process is used and tracked by Git, which essentially captures the code and maintains a history of every single change that can be later viewed by any developer that has access to the repo. GitHub offers developers a chance to work on the same project at the same time, create what we call, branches, to test features by themselves and later merge them into the main code using pull requests. It’s like peer reviewing someone’s paper but preventing writing change conflicts.

GitHub is used throughout the entirety of the project. From creating the development, maintaining it, storing code, collaborating, managing issues, and deploying the application. It is considered almost essential for developers to learn how to use GitHub through the command line. The command line usage can show a deeper understanding of Git’s features and offers a faster, more stream-lined approach to version control, which makes GitHub that much more appealing to employers in the tech industry.

The advantages of GitHub contain collaboration through branching, pull requests, pushes, and maintaining detailed project histories and issue tracking with the use of documentation. Additionally, the platform is also cloud-based, making code source more accessible to its users. Open-source users benefit from public repos, while private repos help business maintain security.

GitHub also contains several disadvantages. New users often find the learning curve steep, heard to understand, or memorize, especially when debugging merge conflicts. Some companies sometimes prefer alternatives like GitLab for more control over the code repos. While GitHub offers private repos, some of its features require a paid plan.

GitHub offers many tools to provide a fast, easy way to create, manage, and document source-code. It’s an effective platform that offers version control, collaboration, and deployment features. Most developers use GitHub to be better in their professional industry and stand out from others.