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CSD380

Module 3.2 Assignment

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**Version Control Guidelines**

Version control (source control) refers to the method of how developers can track and manage changes to software code. Version control also helps development teams collaborate on small and large projects. The three types of version control are centralized, decentralized, and local.

OurCodingClub has an article that provides more information about what version control is. It states that the purpose of version control is to make it easier to keep a record of our work and it’s also easier to recall the previous changes made to the code. Git is a version control software, and GitHub is a platform that it easier to safely store files and keep them organized. This is a method to “back up” your work so if something happens to the code, it won’t be necessary to start all the way from scratch. You can simply pick up where you left off. We save our work in a repository which is simply a main folder that contains separate files or other folders within it.

Geeksforgeeks has an article on Git version control that explains it in more detail. This source coincides with OurCodingClub as it describes version control as a system that saves and tracks changes made to the codebase over time. It can also be used to revert to a stable version when something isn’t working properly within the code. Git is simply a distributed version control system because developers can work on their own copies of a project and still push the changes to a shared repository. There is no central server that it depends on to save the project history, each developer has their own copy of the project history. Some key features of Git include version tracking, collaboration, and branching. There are also checklists for different ways to use Git for version control.

Medium provides an article on all three types, but let’s focus on local version control. This is our standard method of version control that we use simply to submit our assignment. Your personal computer is a local version control system. We can manage all files saved to our system only. There isn’t a remote server we can use to back our files up, all changes are saved to the local database. This is of course one of the least relevant version control guidelines used by developers because majority of the time we need collaboration and we are unable to share our updates and changes when everything is on a local drive.

While the guidelines vary for each type of version control, most of them are very similar in general. We want to remember:

1. The importance of keeping documentation short and clear
2. Commit when necessary
3. Remember to pull before pushing when using repositories
4. Be sure to save files with simple descriptions.

References:

Our Coding Club (n.d.). *Introduction to Git.* Our Coding Club. Retrieved June 13, 2025, from <https://ourcodingclub.github.io/tutorials/git/>

GeeksforGeeks. (2025, April 2). *What is Git?* GeeksforGeeks. Retrieved June 13, 2025, from <https://www.geeksforgeeks.org/git/what-is-git-version-control/>

Medium. (2021, January 20). *Types of version control system.* Medium. Retrieved June 13, 2025, from <https://medium.com/version-control-system/types-of-version-control-system-766a6b656088>