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HWRS 501

Cheat Sheet 1

*GitHub Cheat Sheet:*

1. GitHub is an internet hosting for code, version control, and repo sharing using Git. Git is a free open-source version control development tool used for handling projects as efficiently as possible. It does this through enabling multiple developers to work together simultaneously on a project, similar to google docs but for coding. Version control is the practice of keeping track and managing alterations to software code. By using version control it enables one to be able to revert to a previously functional state of code if their code stopped working. This enables developers to better troubleshoot errors in their work and generally leads to less headaches overall, as developers no longer need to start from square one when they run into colossal errors. In our class we use the graphical user interface, GitKraken, for visualizing and keeping track of our version control as well as interacting with our repo.
2. A Repo is like a special folder on the internet which you can have access to locally on your computer. It allows for the pulling of files created by other users online as well as the pushing of your own local files to the internet-connected shared folder (repo). This enables efficient collaborative development, and due to a repo’s version control, it allows for troubleshooting and reverting to an old version of codes when things stop working.
3. Local repos are files only able to be seen or modified by you. The only way for local repos to get to the remote repository is for the local files to be staged, committed, and pushed to the remote repo. If there is a change to the remote repo that isn’t represented in your local repo, you need to pull those changes from the remote repo, essentially downloading them onto your local drive so they are accessible and modifiable. The origin is a shorthand name for the remote repository that a project was originally cloned from. All files added to the remote repository after it was cloned need to be pulled so that they are accessible on your local repo.
4. Cloning a repo is when you take a remote repository from online and copy all the files onto your local drive in the form of a repo. Forking is like cloning except it copies those files into a local repo that doesn’t affect the remote repo it originated from. Rather, it creates a new remote repo to modify instead. Committing files in a repo are like saving a snapshot of your work, capturing the state of a project at that point of time allowing you to go back to it if needed. Pushing a file is when you upload changes from your local repo into the remote repo, so it is accessible to others working on the project. Pulling is when you download files from the remote repo to your local repo so you can access that work and see the latest updates. Fetching is when you want to pull files from the remote repo without affecting your working repo.