Version Control

When you here of version control, think about Git or GitHub. It lets you track your files over time. When you mess up you can easily get back to a previous working version.

Every Software Engineer should know how to use a version control. Most famous version control used today is **Git.**

Software Engineers store their code on a version control like git. Once one developer is done working on their task and store(push) the changes from their computer(local) to a git repository (a folder in git online), another developer or engineer can easily download those same changes or download the updated codes(pull) and add their own changes as well to the same repository.

Terminologies to learn

Repository – represents a .git (dot git) folder inside a project. You may name it the name of the project

Local – This represents your machine or computer which is not online, and it has the codes stored in your machine

Remote Repository – Represent the git storage online or git repository

Branch – Represent each Subfolder in the project when each developer or engineer store their work

Master or Main branch – Represent the branch having the clean code and updated working cleaner code that has no error

Git Commands

- **git glone <repository url>** Enables you to get the project from GitHub to your machine using the command line
- **git add .** this command is executed each time you need to add in your local directory. You must have a space before the period. This also means adding all changes.
- **git status** will help you check if there is anything to **add .** on your local git directory
- **git pull** if there was a code updated on the remote repository and not updated in your local directory, do a git pull. This command will copy all changes from remote to your local bringing it up to date with the latest code.
- **git checkout -b <branch name>** this is easier way to create a branch and automatically switch to that branch.
- **git checkout brach <branch name>** switch branches
- **git branch** display all the remote and local branches on the git repository
- **git merge** as the word merge, this will copy the code updates from one branch to another
- **git commit -m"message"** this command is used each time you are done with your work, and want to add a message to specify a short description or message of what you did. A commit message will tell anyone what you did once they visit the repository.
- **git push** will send or store the local copy of your work to the remote repository after the commit has been done.