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***Prompt 1:*** *What is git? Why is it useful? What is the git workflow?*

Git is a robust **version control tool** that allows a team of software developers to work together and manage changes to the source code of a project as it is being developed. A tool like Git is especially useful in today’s software development setting where many developers are working remotely. With Git, software developers do not have to work in the same office, or even in the same state.

Not only does Git allow developers to coordinate their work, it also helps track changes to the code being developed. Developers working in teams are often assigned one particular aspect of a project. One developer may be debugging a problem in the existing code of a project while another is creating a new feature. When talking about Git, it helps to think of the repository as a tree. A tree has many branches. On each branch there is a master branch that has many other smaller branches on it.

Each developer’s work is uploaded to a “branch” of the file tree for the project on the repository (GitHub in this case). Should a version uploaded by one developer introduce bugs due to some manner of incompatibility, a previous version of the code can be downloaded from the repository and work can continue.

The Git Workflow process consists of 6 steps .The steps outlined below assume a project is currently underway.

1. **PULL** down changes. Start the day by pulling (downloading) the latest version of the project.
2. **MAKE CHANGES** – Continue your part of the software development.
3. **STAGE YOUR CHANGES** – Much like a photographer sets the scene prior to taking a photo, after you are done with your development you must collect all of your files and stage your changes for updating the project’s repository.
4. **TAKE A SNAPSHOT** (commit) – This step tells Git which files you are uploading to the repository.
5. **PUSH** the changes to the remote branch that belongs to your project.
6. **MERGE** the files on the branch to the master branch.

Sources:

<https://www.geeksforgeeks.org/difference-between-git-and-github/>

<https://about.gitlab.com/topics/version-control/>

<https://www.atlassian.com/git/tutorials/what-is-version-control>

Source Control with Git video in the Week 1 videos for this course.

***Prompt 3:*** *What is your favorite thing you learned this week?*

While I did enjoy the reintroduction to Java, I would have to say that my favorite thing learned this week would definitely be how to use Git and GitHub. This may be obvious by my above “paragraph”. While I have heard about version control software, I have never had the opportunity to use it. To me, this is the only logical way to develop software - especially in today’s day and age. I’m still having a little trouble with it, but I know through repeated use it will become second nature to me.