Understanding and working with Git and Version Control

Git is a distributed version-control for tracking changes in source code during development.

In these video tutorials, changes in source code are tracked from tutorial to tutorial by committing changes with Git. In these tutorials, you can choose to download the source code and avoid working with Git at all. However, if you want to implement version control in your project here is the basics of how to get started.

Bitbucket is a web-based version control repository where you can store your project and its versions. Create an online repo and clone it locally so that changes saved to the cloned folder are automatically uploaded to bitbucket. A repo can be cloned through HTTP or cloned with SSH

- 1. Visit bitbucket.org and create a bitbucket account.
- **2.** Create a new repository for your project and give it a name.
- 3. In your new repository, on the top right of the screen click "Clone".
- **4.** Choose clone HTTPS or SSH and copy the link. (Please note when committing changes using HTTPS you will be prompted for your bitbucket username and password. You can use SSH keys instead, see here for a link to setting up SSH with Bitbucket: <u>SSH Key Set Up</u>
- 5. In your terminal window, navigate to the directory you will be using for your application.
- **6.** Use the command *git clone clonelink* where "clonelink" is the clone link you copied from your bitbucket repository.

You have now created a folder that is linked to your online git repository on Bitbucket. You can now follow along with the tutorial and commit changes to Bitbucket.

The definitions of some commonly used Git commands:

- **git clone** is to fetch your repositories from the remote git server.
- **git checkout** is to checkout your desired status of your repository.
- **git branch** create a new branch. A branch is simply a pointer to one of the commits.
- **git push/git pull** Push or Pull your changes to remote.
- git status To check the status of files you've changed in your working directory.

Please Note: You can download the source code and follow along with this course without using Git.