**Autor**: José Eliud Dias Dos Santos Quemba

**Class**: CSE 210

**Date**: 14/09/2023

What is version control and why is it important?

* Explain the meaning of Version Control

Version control are tools that help software developers to manage and track changes made in code files when dealing with a group projects.

* Highlight a benefit of Version Control

These version control tools allow teams of programmers to work in the same project from different locations and using different devices and they can still do their assignments no necessarily at the same time. It also contains a record of every single move done by everyone, providing a history with the changes that were made, who in the team did it and when were they made.

* Provide an application of Version Control. This means, provide an example of how Version Control could be used.

One of the applications of Version Control that I can think as an example is through school projects given to student that are doing online schooling, some of them live far from each other and some close. The school project is so that they can develop a web site. They can use The platform called GitHub with the Version control named Git.

After diving the tasks, one of the can create a repository named School\_Project inside of the GitHub platform and after that everyone can access and have the same repository in their GitHub accounts and even in their devices and make alterations then upload it so everyone can see their alterations and the details.

* Show a command used in Version Control (for example a Git command)

One of the Git commands that they can use to access and have the same repository in their devices and its history is Git clone. Using VS code to edit the files in the repository, one can use Git clone to have it all in one’s device.

* Thoroughly explain these concepts (this likely cannot be done in less than 100 words)

This can be done in the following order:

- Open VS code as the files editor

- In the navigation bar go to files (if you don’t want to interrupt and pendent tasks)

- Then choose the option Git clone repository (to have the repository in your device and make alterations)

- Then it will pop up an entry bar so you can paste the link of the GitHub platform that takes you to the project repository.

- Then use a place in your device where it can be saved.

- Once it is saved then everyone in the group can make alterations in it.

- After they made the alterations, then it is important that they know the other Version Control system so they can update the GitHub repository with the changes they made in the saved repository in their devices.

- To do that they can use Git push – to update to the main repository, it is also important that they leave a comment so that the team will know what the change was about and to comment, they can us git commit -m “comment here”.

- To have all the alterations that the other team members made in the main repository, they can use git pull.