WHAT IS VERSION CONTROL?

Version Control is a file management system over time, permitting individuals and teams to collaborate and work on projects without infringing or overwriting each other’s contribution. This is a very important part of software development and robust web-based project, where multiple developers often work on the same codebase. Version controls systems (VCS), helps team to maintain and keep track of history of inputs and changes, revert to previous version if need be and manage parallel development through branching and merging. Example of such VCS is Git. Git is a command-based platform. For example, in a software development team working on a web application, each developer may be assigned a different feature. Using Git, they can each create a new branch for their feature using the command: *git checkout -b feature/user-authentication*

**Collaboration** is one key benefit of version control which allows developers to work independently on projects features, bug fixing, then combining their inputs into one project without conflicts.

**Keeping Tracks on Changes** is very paramount to a file or set of files being worked on thereby creating a history of changes.

**Reverting to Previous Versions** of a task allows developers or users to get back to specific previous state of a file or project if needed, fixing errors or deploying alternative approaches.

**Auditing** is another capability as version control systems keep records of who made changes, what changes were made, when and how they were made, providing and audit timeline for the project(s).

**Branching** in version control, allows developers to create isolated versions of a project for the sake of testing and experimentation or new features, which can later to integrated or merged into one main branch.