**What is Git?**

**Git** is a distributed Version Control System that allows for collaboration in a software project while preventing members from over-riding each other's changes. It's also an open source version control system.

A version control system reports changes made to a code over time in a special database called repository.

**Why do we need Git**

We learn git in order to track project history and collaborate effectively in a team.

It helps us to save codes on the cloud.

**Git Architecture**

For people to work on a project from different computers, they have to make use of source code management. For these people to server, they connect through Git server. This we ll try to understand;

The work flow of a git is structured in the form of 3 three architecture. The work flow of a git moves from working directory, through staging/index to local directory, and then to remote repository via commands.. The main block and commands are summarized below. Fig.2

**Working directory:** This is actually the work space where the actual typing of codes is done. Note that the file/code on user A’s computer can not be accessed by other users at this stage. Also, there’s no connection with the local repository and staging area until respective commands are employed, hence “Contract”

At working directory, the contracted files are sent to the Staging via "Add" command. Once there's typing/editing, a command they are first of all added to the Staging. This simply means that any new line of code written would be added to the former code lines by “add” command.

These files are moved to the local directory using "Commit" command.

**At Staging**, a lot of activities and commands are executed

**At Local Repositpory**,Committed files are further pushed to the remote repository, where the team members can now access and work on the project. However, In event that a remote repository pushed by a team member is not seen by another in the team; a PULL command is used to pull it to the local directory.

Supposing one wants to update a file, from the local repository within the local machine, the UPDATE command helps to handle that.

CLONING is employed where there is no local directory while the file at the remote repository is needed at the staging.

Fig.1, 2 & 3 explains the workflow.

