**Linux Assignment 6**

1. What is git

* Git stands for Global Information Tracker
* Git is developed by Linus Torvald in the year 2005
* Git is a source code management tool and has a distributed version control system
* Git free and open source version control system used to handle small to very large projects efficiently

1. What is version control system? Explain types and make a list of tools

Version Control System

* Version control system is nothing but source code file
* Whenever they are adding new changes at that time they need to commit the changes

Version control system is classified into 3 types

1. Local version control system
2. Centralized version control system
3. Distributed version control system

Local version control system

* It is having one local system, if anything happens to that system total work destroyed and there is no backup of data
* To overcome this we are using centralized version control system

Centralized version control system

* It contains only one repository, if anything happens to that repository total work destroyed
* To overcome this we are using distributed version control system

Distributed version control system

* It is nothing but Git repository
* Repository is nothing but is a place where something especially natural resource is found in significant quantities
* Git repository having 4 parts

1. Working directory
2. Staging area
3. Local repository
4. Remote repository

Working directory

* It is a location where our developers are writing the code and doing the changes to the code
* We are creating one file and that file transfer to staging area

Staging area

* It is nothing but location, we need to add the file because other members can be able to review the code
* After reviewing, the file transfers to local repository

Local repository

* If any changes to the code that will be stored in local repo as a record
* .git/ is a local repository
* ls -a is a command to view the local repo

Remote repository

* Remote repository is nothing but Github
* In remote repo, we need to push the file git to github