# **GITHUB ASSIGNMENT PART – 1**

1. What is Git?

Ans. Git is a one of popular version control system , it was created by Linus Torvalds in 2005 and has been maintained by ‘Junio Harmano’ , Distributed version control system is a git, we can say.

Q2. What do understand by the term Version control System?

Ans. In a very simple language to keep our data in a very protective way.

* To keep the tracking records of the file.
* To be work on a work a on Collaborative environment.

With the help of VCS we have a assurity if somehow our system will crash due to any reason our all efforts will die , waste but because we push our files into server we can access them again , and also anybody can access if we give them permission.

Q3. What is GitHub?

Ans. In a simply way we can say GitHub is a storage device or server or cloud where we can save our data permanently.

Q4. Mention some popular git hosting services?

* Gitlab
* Bit bucket
* Git-hub
* Gitorious
* Cloud etc.

Q5. Different types of version control System?

Ans. There are so many types but highly we considered two :-

1. Centralized Version Control System:- in this system we can work into our personal workspace and after the work we can commit our files into the server or main repository , in this system we don't have any local repository so sometimes there may be chances when B user want to access the files which A user commit network error could be occured so because of this problem this CVCS system is not so popular or used because there is no local repository in any system.

2. Distributed Version Control System:- Git is a distributed version control system the basic difference between CVCS & DVCS are ‘DVCS’ have a local repository so we can download the copy of files from main repo to our local repo and if sometime main server is down we don't have problem because we already have its copy and also if we want to do some changes in local repo and that time main sever is down we can commit it there and when main server is up we can easily push the files.

Q6. Benefits of using Git?

* Files can be tracked.
* Collaborative working environment.
* Tracking code change.
* Tracking who made the change.
* History Recorded.

Q7. What is a Git repository?

Ans. Git is a distributed version control system and when we work on it git create a 3 stages like:-

1. **Working stage :-** Means where we can do our all work whatever we want to do but at that time our files will not in any tracking mode. After our work we have to add our files into staging area so that our files could be record.

* To add the files we use command **'git add <filename> and enter'**.

2**. Staging Area :-** After add the files from work to staging area now the files is start tracking its record , because we can work into many projects or files on a working area but we want to add some of files so that’s why we shift into staging area first for record maintains too, after that now the files is ready for commit to local repository from staging area. The command will use **(git commit -m "message we want to give" and enter).**

3. **Local repository:-** After commit now the files is in local repository and last step is only push the files from local to main repository and our files will upload to server. Any changes will not show other developers till the files not push to main repository.

* **git remote add origin (URL of main repo)**
* **git push -u origin main**

Q8. How can you initialize the repository in git?

Ans. By simply give the command ‘**git init**’ .