**ASSIGNMENT – 2**

**Q1. What is Git?**

**Ans. Git**  is a distributed version control system that tracks changes in any set of computer files, usually used for coordinating work among programmers collaboratively developing source code during software development.

**Q2. What do you understand by the term version control system?**

**Ans.**  Version control systems are a category of software tools that helps in recording changes made to files by keeping a track of modifications done in the code.

**Q3. What is GitHub?**

**Ans. GitHub** is an [Internet hosting service](https://en.wikipedia.org/wiki/Internet_hosting_service) for [software development](https://en.wikipedia.org/wiki/Software_development) and [version control](https://en.wikipedia.org/wiki/Version_control) using [Git](https://en.wikipedia.org/wiki/Git). It provides the [distributed version control](https://en.wikipedia.org/wiki/Distributed_version_control) of Git plus [access control](https://en.wikipedia.org/wiki/Access_control), [bug tracking](https://en.wikipedia.org/wiki/Bug_tracking_system), [software feature](https://en.wikipedia.org/wiki/Software_feature) requests, [task management](https://en.wikipedia.org/wiki/Task_management), [continuous integration](https://en.wikipedia.org/wiki/Continuous_integration), and [wikis](https://en.wikipedia.org/wiki/Wiki) for every project.

**Q4. Mention some popular git hosting services?**

**Ans.** GitHub , GitLab , Bitbucket , Beanstalk , Codebase , Launchpad etc.

**Q5. Different types of version control systems.**

**Ans.** There are two types of version control system. These are –

**1) CVCS -** CVCS stands for Centralised Version Control Systems . Centralized version control systems contain just one repository globally and every user need to commit for reflecting one’s changes in the repository. It is possible for others to see your changes by updating.

**2) DVCS** – DVCS stands for Decentralised Version Control Systems. Distributed version control systems contain multiple repositories. Each user has their own repository and working copy. Just committing your changes will not give others access to your changes. This is because commit will reflect those changes in your local repository and you need to push them in order to make them visible on the central repository.

**Q6. What benefits come with using git?**

**Ans.** Benefits that come with using git are –

1) Performance

2) Security

3) Flexibility

4) Wide acceptance

5) Quality open source project

**Q7. What is a git repository?**

**Ans.** Repositories in GIT contain a collection of files of various different versions of a Project. These files are imported from the repository into the local server of the user for further updations and modifications in the content of the file.

**Q8. How can use initialize a repository in git?**

**Ans.** To create a new repo, you'll use the git init command. git init is a one-time command you use during the initial setup of a new repo. Executing this command will create a new .git subdirectory in your current working directory. This will also create a new main branch.