**Assignment**

1. **What is Git?**

Ans – Git is a popular version control system (VCS) it was created by Linus Torvalds in 2005 and has been maintained by Junio Hamano.

1. **What do you understand by the term 'Version Control System?**

Ans - A Version Control System (VCS) is software that tracks and manages changes to files and projects over time, enabling collaboration, versioning, branching, merging, and conflict resolution among multiple contributors.

1. **What is GitHub?**

Ans - GitHub is a code hosting platform for collaboration and version control. GitHub lets you (and others) work together on projects.

1. **Mention some popular Git hosting services.**

Ans - Some popular Git hosting services include:

* GitHub
* GitLab
* Bitbucket
* Source Forge

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

Ans - There are primarily two types of Version Control Systems (VCS):

**Centralized Version Control Systems (CVCS):**

* In a CVCS, there is a central server that stores all the versioned files, and users check out files from this central repository.
* Users work locally on their machines and synchronize changes with the central server.

**Distributed Version Control Systems (DVCS):**

* In a DVCS, each user has a complete copy of the repository, including its entire history.
* Users can work offline and commit changes locally without needing access to a central server.
* Changes can be shared and synchronized between repositories.
* Examples include Git, Mercurial, and Bazaar.

1. **What benefits come with using GIT?**

Ans - Using Git offers benefits such as distributed development, efficient branching and merging, strong performance, data integrity, collaboration support, a rich ecosystem, and flexibility.

1. **What is a Git repository?**

Ans - A Git repository is a storage location where Git tracks changes and manages the history of files for a project.

1. **How can you initialize a repository in Git?**

Ans – To initialize a Git repository, use the command: git init.