**Git and GitHub solution**

1. What git?

Git is a distributed version control system (DVCS) commonly used in software development to track and manage changes to source code over time.

Git is known for its speed, flexibility, and robust branching and merging capabilities, making it an essential tool for collaborative software development.

1. What you understand by the term a ‘version control system’?

A "version control system" (VCS), also known as a "revision control" or "source code management" system, is a software tool or system that helps developers and teams manage changes to their source code and other files over time. The primary purpose of a version control system is to track and record the history of changes made to a project, allowing developers to collaborate effectively, maintain code quality, and recover from mistakes.

3.what is GitHub?

GitHub is a web-based platform and service that provides a cloud-based repository hosting service for version control using Git.

1. Mention some popular git hosting services.
2. GitHub
3. GitLab
4. SourceForge
5. Bitbucket
6. 5.Different types of version control system?

Local Version Control System:

* Local VCS systems are the simplest form of version control and are typically used by individual developers or for small, localized projects.

Centralized Version Control System (CVCS):

* CVCS systems have a central server that stores the entire version history and codebase.

Distributed Version Control System (DVCS):

* DVCS systems are more distributed and provide each developer with a complete copy of the repository, including its entire history.

1. 6. what benefits come using GIT?

* Feature Branch Workflow. One of the biggest advantages of Git is its branching capabilities. ...
* Distributed Development. In SVN, each developer gets a working copy that points back to a single central repository. ...
* Pull Requests. ...
* Community. ...
* Faster Release Cycle.

7. what is the Git Repository?

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.

8. How can you initialize a repository in Git ?

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.