

23 Jan 2023 Git and GitHub :

Assignment -

Que.1 → What is Git?

Ans. → Git is a distributed version control system used for software development and source code management. It allows multiple developers to work on the same code base, track changes and manage conflicts efficiently.

Que.2 → What do you understand by the term 'Version control system'?

Ans. → A version control system (VCS) is a software tool that tracks changes to source code over time, enables collaboration b/w multiple developers and maintains a history of the code base. It helps manage versions of code and facilitates recovery of older versions if needed. Common version control systems include Git, SVN and Mercurial.

Que. 3. → What is GitHub?

Ans. → GitHub is a web-based platform that hosts Git repositories, providing version control, collaboration, and project management features for software development. It allows developers to store their code, track changes, and collaborate with other developers easily.

Que. 4. → Mention some popular Git hosting services.

Ans. → GitHub, GitLab, Bitbucket, SourceForge, Beanstalk etc.

Que. 5. → Different types of version control systems.

Ans. → There are two main types of version control systems:-

(i) Centralized Version Control Systems (CVCS)

(ii) Distributed Version Control Systems (DVCS)

Que. 6. → What benefits come with using GIT?

Ans. → Speed → Git is fast and efficient, allowing developers to work quickly and make frequent commits.

Distributed → Git is a distributed version control system, meaning that developers can work on their local machines and synchronize changes with others later.

Collaboration → Git makes it easy for multiple developers to work on the same codebase, resolve conflicts and track usage changes.

Open Source → Git is open source software.

Branching and Merging → Git provides a powerful branching and merging system, allowing developers to work on multiple features simultaneously.

Ques. 7. → What is Git repository?

Ans. → A Git repository is a place where a ϕ collection of files, along with their complete revision history, is stored. A repository is a directory that contains the files and metadata for a project, including all past and current changes to the codebase.

Que. 8. → How can you initialize a repository in Git?

Ans. → To initialize a new git repository, you can use the "git init" command in the terminal as CMD.

This creates a new Git repository in the current directory.

→ You can add files to the repository and start tracking changes - "git add <file name>"

→ And finally, you can commit the changes - "git commit -m" ""