

# Git and Github

## 1. What is Git?

Ans: Git is a version control system for tracking changes in computer files and is used to help coordinate work among several people on a project while tracking progress over time. In other words, it's a tool that facilitates source code management in software development.

## 2. What do you understand by the term 'Version Control System'?

Ans: In order to invoke a specific version later, if necessary, a version control system (VCS) keeps track of all the changes made to a file or group of data. This makes sure that everyone in the team is using the most recent version of the file.

## 3. What is GitHub?

Ans: GitHub uses Git to offer Internet hosting for version control and software development.

## 4. Mention some popular Git hosting services.

Ans:

- i) GitHub
- ii) SourceForge
- iii) GitLab
- iv) Bitbucket

## 5. Different types of version Control systems.

Ans: i) Local version control systems have a database that stores all file changes under revision control on disc in a special format.

ii) Centralised version control systems have a single repository; from which each user receives their working copy.

iii) Distributed version control systems contain multiple repositories, and different users can access each one with their working copy.

## 6. What benefits Come with using GIT ?

Ans: Data replication and redundancy are both possible.

- i) It is a service with high availability.

- ii) There can only be one Git directory per repository.
- iii) Excellent network and disc performance are achieved.
- iv) On any project, collaboration is very simple.

### **7. What is a Git repository?**

Ans: The term "Git repository" describes the location where all Git files are kept. Either the local repository or the remote repository may be used to store these files.

### **8. How can you initialize a repository in Git?**

Ans: The git init command must be used to initialise an empty repository to a directory in Git. Following this command, a hidden .git folder will become visible.