

# Git and Github

## Assignment

## Answers

### **1.What is Git?**

Ans. Git is a free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency. .

### **2.What do you understand by the term ‘ Version Control System’?**

Ans.Version control (also known as revision control, source control, or source code management) is a class of systems responsible for managing changes to computer programs, documents, large web sites, or other collections of information. Version control is a component of software configuration management.

### **3.What is GitHub?**

Ans.GitHub is an Internet hosting service for software development and version control using Git. It provides the distributed version control of Git plus access control, bug tracking, software feature requests, task management, continuous integration, and wikis for every project.

### **4.Mention some popular Git hosting services.**

Ans. These are some popular Git hosting services :-

- Bitbucket.
- GitLab.
- Perforce.
- Beanstalk.
- Amazon AWS CodeCommit.
- Codebase.
- Microsoft Azure DevOps.
- SourceForge.

### **5.Different types of version control systems**

Ans.There are two types of version control: centralized and distributed.

#### **➤ Centralized version control**

With centralized version control systems, you have a single “central” copy of your project on a server and commit your changes to this central copy. You pull the files that you need, but you never have a full copy of your project locally. Some of the most common version control systems are centralized, including Subversion (SVN) and Perforce.

### ➤ **Distributed version control**

With distributed version control systems (DVCS), you don't rely on a central server to store all the versions of a project's files. Instead, you clone a copy of a repository locally so that you have the full history of the project. Two common distributed version control systems are Git and Mercurial.

## **6.What benefits come with using GIT?**

Ans. These are some benefits :-

- Performance. Git performs very strongly and reliably when compared to other version control systems. ...
- Security. Git is designed specially to maintain the integrity of source code. ...
- Flexibility. ...
- Wide acceptance. ...
- Quality open source project.

## **7.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.

## **8.How can you 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.

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