Git and Github Assignment Questions

Assignment:

1. What is Git?

Ans → Git is a distributed version control system, which means that a local clone of the project is a complete version control repository. These fully functional local repositories make it easy to work offline or remotely. Developers commit their work locally, and then sync their copy of the repository with the copy on the server. This paradigm differs from centralized version control where clients must synchronize code with a server before creating new versions of code.

1. What do you understand by the term ‘Version Control System’?

Ans → Version control systems are software that help track changes made in code over time. As a developer edits code, the version control system takes a snapshot of the files. It then saves that snapshot permanently so it can be recalled later if needed. Without version control, developers are tempted to keep multiple copies of code on their computers.

1. What is GitHub?

Ans → GitHub is a Git repository hosting service. GitHub also facilitates with many of its features, such as access control and collaboration. It provides a Web-based graphical interface.

1. Mention some popular Git hosting services?

Ans → GitHub, GitLab, Bitbucket, Beanstack, Amazon AWS CodeCommit.

1. Different types of version control systems?

Ans → Local Version Control Systems

Centralized Version Control Systems

Distributed Version Control Systems

1. What benefits come with using GIT?

Ans → i. Fast to Work With Most of the Git operations are fast, mainly because they are performed on your local repository copy.

ii. Repositories Are Smaller A typical Git repository is smaller than for instance one using SubVersion

iii. Moving or Adding files

iv. Check the Status of Your Changes

v. Stash Branches

vi. Cherry Pick Changes from Branches

vii. Find a version that Introduced a bug using Binary Search

1. What is a Git repository?

Ans → Repositories in [GIT](https://www.geeksforgeeks.org/git-lets-get-into-it/) 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.

1. How can you initialize a repository in Git?

Ans → Through “git init” command