Assignment-2 Questions

1. What is Git?

Ans :- Git is a version control system for tracking changes in computer files and coordinating work on those files among multiple people. It is primarily used for source code management in software development, but it can be used to keep track of changes in any set of files. Git allows users to easily manage and track revisions to their files, as well as collaborate with others on the same project.

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

Ans:- A version control system (VCS) is a system that records changes to a file or set of files over time so that you can recall specific versions later. It allows multiple users to collaborate on the same files, by keeping track of changes made by each person and allowing them to be merged together when necessary. This can be especially useful for software development, where multiple people may be working on the same codebase at the same time.

3. What is GitHub?

Ans:- GitHub is a web-based platform that uses Git for version control and provides a collaborative environment for developers to work on projects together. It allows users to host and review code, manage projects, and build software. With GitHub, users can easily share their code with others, and collaborate on projects by suggesting changes, reporting bugs, and discussing ideas.

4. Mention some popular Git hosting services.

Ans :- Some popular Git hosting services are GitHub, GitLab, Bitbucket, Source Forge, Visual Studio Team Services (VSTS), AWS Code Commit.

5. Different types of version control systems.

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

Centralized Version Control Systems (CVCS) - In CVCS, there is a single central repository that contains all the files and versions of the project. Users can check out files from the repository, make changes, and check in the new versions. Examples of CVCS include Subversion (SVN) and Perforce.

Distributed Version Control Systems (DVCS) - In DVCS, each user has a full copy of the repository on their local machine. Users can make changes and commit them to their local repository, and then push or pull changes to and from other repositories. Examples of DVCS include Git, Mercurial, and Bazaar.

6. What benefits come with using Git ?

Ans:- Git provides several benefits, including: tracking changes to files, coordinating work among multiple people, easy rollback to previous versions, ability to work offline, ability to easily

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collaborate and share code with others, ability to handle large projects with many contributors, ability to easily manage multiple branches and merge them. Additionally, Git is open - source, widely adopted and has a big community that supports it.

7. What is a Git repository?

Ans:- A Git repository is a location where all the files, commits, and version history of a project are stored and managed. It is the heart of Git version control system.

8. How can you initialize a repository in Git?

Ans:- To initialize a new Git repository, use the command "git init" in the command line while in the directory of the project you want to track. This will create a new subdirectory named “. git" that contains all of the necessary files for the Git repository. Once the repository is initialized, you can start committing changes to the repository using Git commands such as "git add" and "git commit".

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