

## Git and Github Assignment.

Q What is Git?

→ 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.

Q What do you understand by the term 'version control system'?

→ Version control, also known as source control, is the practice of tracking and managing changes to software code. Version control systems are software tools that help software ~~teams~~ teams manage changes to source code over time.

Q What is Github?

→ Github is a website and cloud based service that helps developers store and manage their code, as well as track and control changes to their code.

Q Mention some popular Git hosting services.

→ Bitbucket, Github, Gitlab, codebase.

Q Different types of version control systems.

→ Mercurial, Concurrent Version System, GNU Bazaar, Azure DevOps server.

Q What are the benefits of using Git?

→ One of the biggest advantages of Git is its branching capabilities. Unlike centralized version control systems, Git branches are cheap and easy to merge. This facilitates the feature branch workflow popular with many Git users. Feature branches provide an isolated environment for every change to your codebase.

Q What is a Git repository?

→ A Git repository tracks and saves the history of all changes made to the files in a Git project. It saves this data in a directory called `.git`, also known as the repository folder.

Q How can you initialize a repository in Git?

1. Create a new repository on GitHub.com
2. Open Terminal
3. Change the current working directory to your local project
4. Use the `init` command to initialize the local directory as a Git repository.
5. Add the files in your new local repository
6. Commit the files that you've staged in your local repository.