MCQ

What command is used to initialize a Git repository locally?

a) git clone

b) git init

c) git commit

d) git push

How can you check the status of your changes in a Git repository?

a) git status

b) git check

c) git diff

d) git log

What command is used to stage files for a commit in Git?

a) git add

b) git stage

c) git commit

d) git push

What is the purpose of forking a repository on GitHub?

a) To create a new branch in the original repository

b) To merge changes from one repository to another

c) To copy a repository under your GitHub account

d) To revert changes in a repository

What is a Pull Request used for in GitHub?

a) Requesting changes to be pulled into a repository

b) Submitting changes for approval and merging

c) Deleting branches in a repository

d) Checking the status of commits in a repository

What does a 'Merge Conflict' indicate in a GitHub pull request?

a) Successful merging of changes

b) Inconsistencies between branches that need to be resolved

c) Rejection of a pull request

d) Approval of changes for merging

Which command is used to create a new branch in Git?

a) git branch

b) git commit

c) git checkout

d) git merge

What command is used to view the commit history in Git?

a) git log

b) git history

c) git show

d) git status

How can you undo the last commit in Git?

a) git amend

b) git reset

c) git revert

d) git undo

What is a repository in GitHub?

a) A folder on your local machine

b) A collection of project files and revision history

c) A social media platform for developers

d) A code editor tool

How can you clone a repository from GitHub to your local machine?

a) git clone

b) git fetch

c) git init

d) git pull

What is the purpose of the 'Issues' tab in GitHub repositories?

a) To track and discuss bugs, enhancements, and tasks

b) To view commit history

c) To create new branches

d) To merge changes into the main branch

Which GitHub feature allows multiple people to collaborate on a project simultaneously?

a) Pull Requests

b) Forking

c) Issues

d) Branches

What does the 'README.md' file in a GitHub repository contain?

a) Detailed instructions for using the project

b) A list of contributors

c) Commit history

d) License information

How can you update your local repository with changes from a remote repository in Git?

a) git merge

b) git fetch

c) git update

d) git commit -u origin

What is the purpose of the 'git push' command in Git?

a) To stage changes for commit

b) To download changes from a remote repository

c) To update the remote repository with local changes

d) To switch between branches

**What is git and github?**

**Git:**

A version control system, or VCS, tracks the history of changes as people and teams collaborate on projects together. As developers make changes to the project, any earlier version of the project can be recovered at any time.

Typically, to do this in a Git-based workflow, you would:

* **Create a branch** off from the main copy of files that you (and your collaborators) are working on.
* **Make edits** to the files independently and safely on your own personal branch.
* Let Git intelligently **merge** your specific changes back into the main copy of files, so that your changes don't impact other people's updates.
* Let Git **keep track** of your and other people's changes, so you all stay working on the most up-to-date version of the project.

**Git Hub:**

GitHub, on the other hand, is a web-based platform built around Git. It provides hosting for Git repositories, along with additional features like issue tracking, pull requests, code review, and project management tools. GitHub enables developers to share their code, collaborate with others, and contribute to open-source projects. It serves as a central hub for code hosting, collaboration, and community engagement.Storing your code in a "repository" on GitHub allows you to:

* **Showcase or share** your work.
* **Track and manage** changes to your code over time.
* Let others **review** your code, and make suggestions to improve it.
* **Collaborate** on a shared project, without worrying that your changes will impact the work of your collaborators before you're ready to integrate them.

Collaborative working, one of GitHub’s fundamental features, is made possible by the open-source software, Git, upon which GitHub is built.

What is CVCS and DVCS ?

**CVCS (Centralized Version Control System)**: In a CVCS, there is a central server that stores the entire repository and its history. Developers checkout files from this central repository to work on them. When changes are made, they are committed back to the central server. Examples of CVCS include Subversion (SVN) and CVS (Concurrent Versions System).

The main advantages of centralized version control system is, it gives more control to the administrator that who can do what.programmers don’t have to keep many copies of a files in their drives manually because the version control tool can talk to central copy and get any files they want.

disadvantages also like if there is server down for a time period or there is any network connectivity issue then programmers wont be able collaborate and save the changes that they have been working on

**DVCS (Distributed Version Control System)**: In a DVCS, each developer has a local copy of the entire repository, including its full history. This means that developers can work independently, committing changes to their local repository without needing constant access to a central server. Changes can later be synchronized between repositories by pushing and pulling changes from remote repositories. Examples of DVCS include Git, Mercurial, and Bazaar.

major benefit of this is that even if there is connectivity issue arises we can still work on our project and update those changes back to the sever when internet is available.

Create a project of any and push the project

Create 3 branches and 5 tags

Create a Keygen and push using ssh