**Git Assessment -1**

1. **what command is used to initialize a new Git repository in the current directory?**

git init

1. **How do you create a new branch named feature-update in your local repository?**

git branch feature-update

When you want to work on a new feature without affecting the main branch.

1. **Explain the purpose of the git stash command with an example.**

Purpose of the git stash is temporarily saving modified files without committing them.

Example- git stash

When you need to switch to another task but want to preserve your current changes.

1. **What command do you use to stage changes in your working directory for the next commit?**

git add <file name>

When you want to include a file in the next commit.

1. **Write the command to commit staged changes with a message "Initial commit".**

git commit -m “initial commit”

When you want to save your changes to the repository.

1. **How do you view the current status of your Git repository, including staged and unstaged changes?**

Command for viewing the current status of Git repository – git status

When you want to see what files have been modified or added

1. **What command allows you to see the commit history in your Git repository?**

git log

When you want to see what changes have been made to the repository over time.

1. **How do you discard changes in your working directory and revert to the last committed state?**

git checkout -- <filename>

When you want to discard changes, you've made to a file.

1. **What command is used to reset the current branch to a specific commit?**

git reset –hard <commit-hash >

When you want to undo changes that have already been committed.

1. **How do you link a local Git repository to a remote repository?**

Git remote add origin <remote-url>

When you want to share your code with others or collaborate on a project.

1. **What command do you use to push your local changes to the remote repository?**

Git push origin <branch -name>

When you want to share your changes with others or back up your code.

1. **What command is used to pull the latest changes from the remote repository?**

Git pull origin <branch -name>

Fetches and merges changes from a remote repository.

When you want to update your local repository with changes made by others.

1. **Explain the purpose of the git clone command.**

The purpose of git clone command is creating a local copy of remote repository.

Git clone <remote-url>

When you want to start working on a project that is already hosted on a remote repository.

1. **How can you create a new branch based on a specific commit rather than the current HEAD? What is the command?**

Git checkout -b <new-branch-name> <commit-hash>

<new-branch-name>: Replace this with the desired name for your new branch.

<commit-hash>: Replace this with the actual hash of the specific commit you want to create the branch from. You can find the commit hash using the git log command.

1. git checkout -b: This creates a new branch with the specified name.
2. <new-branch-name>: The name you want to give to the new branch.
3. <commit-hash>: The hash of the commit you want to start the new branch from.

Example,

If you want to create a new branch named "feature-fix" starting from the commit with the hash abcdef1234567890, you would use the following command,

git checkout -b feature-fix abcdef1234567890

This will create a new branch named "feature-fix" that is detached from the current branch and points to the specified commit. You can then start making changes on this branch without affecting the original branch.