Git Assignment

1. How do you initialize a new Git repository named "project1" on your local machine?

Git init project1

1. How do you add a new file named "index.html" to the "project1" repository?

Git add index.html

1. How do you stage the changes made to "index.html" for committing?

Git add index.html

1. How do you commit the changes made to "index.html" with a commit message of "Add index.html"?

Git commit -m “First addition”

1. How do you view the commit history of the "project1" repository?

Git log

1. How do you create a new branch named "feature-branch" in the "project1" repository?

Git branch feature-branch

1. How do you switch to the "feature-branch" in the "project1" repository?

Git checkout feature-branch

1. How do you make changes to "index.html" in the "feature-branch"?

Git add index.html

Git commit -m "Modify index.html in feature-branch"

1. How do you stage and commit the changes made in the "feature-branch" with a commit message of "Update index.html in feature branch"?

Git checkout feature-branch

Git add index.html

Git status

git commit -m "Update index.html in feature branch"

git push origin feature-branch

1. How do you switch back to the main branch in the "project1" repository?

git branch

git checkout main

1. How do you merge the changes from the "feature-branch" into the main branch?

Git merge feature-branch

Git commit

1. How do you resolve any merge conflicts that occur during the merge process?

When merge conflicts occur during the merge process in Git, they need to be resolved manually. Here's a general overview of how to resolve merge conflicts:

Identify the conflicted files --> Open the conflicted file in a text editor --> Analyze the conflict -->Resolve the conflict

1. How do you view the changes introduced by the merge commit?

Git log

Git show <merge-commit-hash>

Use git log to insert hash value above

1. How do you create a new tag named "v1.0" for the current commit in the "project1" repository?

Git tag v1.0

OR

Git tag -a v1.0 -m "Version 1.0 release"

1. How do you push the "project1" repository to a remote repository named "origin"?

Git remote -v (Checks if “origin” repository exists)

IF NOT

Git remote add origin <remote-repository-url> (Replace URL with URL of repository)

Git push origin

Git push -u origin main

1. How do you clone the "project1" repository from a remote repository to another machine?

git clone <remote-repository-url>

1. How do you fetch the latest changes from the remote repository to your local "project1" repository?

git fetch

1. How do you pull the latest changes from the remote repository into your current branch in the "project1" repository?

Verify your current branch (git branch)--> Fetch the latest changes from the remote repository(git fetch) -->Merge the fetched changes into your branch(git merge origin/main)--> Resolve if any conflicts --> Verify the pulled changes (git log or git status)

1. How do you create a new branch named "bug-fix" in the "project1" repository based on a specific commit?

git branch bug-fix <commit-hash>

1. How do you revert the last commit made in the "project1" repository?

git revert HEAD