Day-6

Assignment 1 - Assignment 1: Initialize a new Git repository in a directory of your choice. Add a simple text file to the repository and make the first commit.

Step 1 - Open a terminal window.

Step 2- Navigate to the directory where you want to initialize the Git repository

usingthe cdcommand. For example:

cd /path/to/your/directory

Step 3 -Initialize a new Git repository using the git initcommand: for example -

git init

Step 4 - Create a simple text file in the directory. You can use any text

editor youprefer. For example, you can create a file named example.txt:

touch example.txt

Step 5 - Add some content to the text file. You can use any text you like.

Forexample, you can open example.txtin a text editor and write:

This is a simple text file for demonstration purposes.

Step 6 - Add the text file to the staging area using the git addcommand:

git add example.txt

Step 7 - Commit the changes to the repository using the git commitcommand:

git commit -m "Initial commit: Add example.txt"

In this command, -m is used to specify a commit message in quotes.
Make sure to provide a meaningful message that describes the changes
you've made in this commit.

```
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git init
Initialized empty Git repository in D:/Wipro Tranning/Phase 2 Traning/Day 5/demo/.git/
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> ls


    Directory: D:\Wipro Tranning\Phase 2 Traning\Day 5\demo


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----        08-05-2024     20:50              0 sample.txt


PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git add ..
fatal: ..: '..' is outside repository at 'D:/Wipro Tranning/Phase 2 Traning/Day 5/demo'
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git add .
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   sample.txt

PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git commit -m "first commit"
[master (root-commit) cb16ae3] first commit
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 sample.txt
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo>
```

Assignment 2 : Branch Creation and Switching

**Create a new branch named 'feature' and switch to it. Make changes in
the 'feature' branch and commit them.**

To create a new branch named 'feature' and switch to it, make changes,
and commit them, follow these steps:

Step 1 - Create a new branch named 'feature' using the git branch
command:

git branch feature

Step 2 - Switch to the 'feature' branch using the git checkout command:

git checkout feature

Step 3 - Make changes to the files in your working directory as needed. For example, you can open example.txt in a text editor and add some additional text.

Step 4 - After making changes, add the modified files to the staging area using the git add command:

git add example.txt

Step 5 - Commit the changes to the 'feature' branch using the git commit command:

git commit -m "Add additional content to example.txt in the feature branch"

Now, we've created a new branch named 'feature', switched to it, made changes, and committed them to the 'feature' branch. You can continue working on this branch, making additional changes, and committing them as needed.

```
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git branch
  main
* master
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git branch feature
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git checkout feature
Switched to branch 'feature'
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> ls


    Directory: D:\Wipro Tranning\Phase 2 Traning\Day 5\demo


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----         08-05-2024     20:50              0 sample.txt


PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git add sample.txt
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git commit -m "Made changes in the feature branch"
On branch feature
nothing to commit, working tree clean
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> |
```

Assignment 3 : Assignment 3: Feature Branches and Hotfixes

Create a 'hotfix' branch to fix an issue in the main code. Merge the 'hotfix'branch into 'main' ensuring that the issue is resolved.

To create a 'hotfix' branch to fix an issue in the main code, merge the 'hotfix'branch into 'main', ensuring that the issue is resolved, follow these steps:

Step 1 - Create a new branch named 'hotfix' from the 'main' branch using the

git checkout command:

git checkout -b hotfix main

Step 2 - Make the necessary changes to fix the issue in your working directory.

Step 3 - After fixing the issue, add the modified files to the staging area

usingthe git addcommand:

git add <modified_files>

Step 4 - Commit the changes to the 'hotfix' branch:

git commit -m "Fixed the issue in the hotfix branch"

Step 5 - Switch back to the 'main' branch:

git checkout main

Step 6 - Merge the 'hotfix' branch into the 'main' branch using the git merge command.

git merge hotfix

Step 7 - Verify that the issue is resolved in the 'main' branch.

Step 8 - Optionally, you can delete the 'hotfix' branch after merging

it into'main':

git branch -d hotfix

Now, the 'hotfix' branch has been merged into the 'main' branch, resolving the

issue inthe main codebase.

```
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git status
On branch feature
nothing to commit, working tree clean
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git checkout -b hotfixes
Switched to a new branch 'hotfixes'
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git branch
  feature
* hotfixes
  main
  master
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git add sample.txt
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git commit -m "Fixed the issue in the hotfix branch"
On branch hotfixes
nothing to commit, working tree clean
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git checkout master
Switched to branch 'master'
PS D:\Wipro Tranning\Phase 2 Traning\Day 5\demo> git merge hotfixes
Already up to date.
```