3. Creating and Managing Branches

Write the commands to stash your changes, switch branches, and then apply the stashed changes.

Step 1 : Create a new folder

cd Desktop\

mkdir gitlab3_stash_demo

cd gitlab3_stash_demo

Step 2 : Create a file and add some contents

touch file1.txt

echo "This is version 1 of the file" > demo.txt

Step 3: Initialize Git , Add and commit the file

git add .

git commit -m "Initial commit 1"

Step 4 : Make some new changes in the same file (not yet committed)

echo "Add some features" >> demo.txt

This Adds new content to the file but do not add or commit these changes yet.

Step 5 : Stash the uncommitted changes

git stash

This will Saves your uncommitted changes temporarily and cleans your working directory.

Step 6: Create a new branch and switch to it

git checkout -b feature-branch

Step 7: Check file contents

cat demo.txt

You'll see only the committed content**,** because stashed changes are not automatically applied.

Step 8: Apply the stashed changes

```
git stash apply
```

It will Restores the stashed (previously saved) changes into your current branch.

Step 9: Check the file contents again

```
cat demo.txt
```

Now the file shows both the old and newly added text

Step 10: View all stashes

```
git stash list
```

Displays the list of stashed entries

Step 11: Drop the stash (optional)

```
git stash drop
```

4 Collaboration and Remote Repositories

Clone a remote Git repository to your local machine.

Step 1: Create a GitHub account (Remote Repository Setup)

- Open the website: https://github.com
- Sign up or log in with your GitHub account.
- Click **"New Repository"** → Enter repository name, e.g. `gitlab4_clone_demo`.
- Choose **Public** → Click **Create repository**.

Step 2 : Add a new file in GitHub

- Inside your repository, click on **"Add file" → "Create new file"**
- Give a file name : `sample.txt`
- Add some sample content, for example: This is vtu git lab , we are learnig about git .
- Scroll down → Click **Commit changes**.

Step 3 : Copy the repository URL

- On the main repository page, click the **green "Code" button**.
- Under the **HTTPS** tab, copy the URL.

  Example : https://github.com/your-username/gitlab4_clone_demo.git

Step 4: Go to local system and open Git Bash

- create a folder to store your projects.

  cd D:/Git_Programs
  mkdir clone_demo
  cd clone_demo

Step 5 : Clone the remote repository to local system

git clone https://github.com/your-username/gitlab4_clone_demo.git

This command downloads all files and commits from GitHub into your local folder.

Step 6: Move into the cloned repository and verify the remote connection

cd gitlab4_clone_demo

git remote -v