# Git User Guide

## Prerequisites

1. Install Git on your system (Download from https://git-scm.com/downloads).

2. Have access to a GitHub repository.

## Step 1: Clone the Repository (Main Branch)

To get a local copy of the repository, open the terminal (Git Bash) and run:

git clone https://github.com/puspabehera/PythonProject.git

Now, navigate into the project folder:

cd PythonProject

## Step 2: Check Available Branches

To see the list of remote branches, run:

git branch -r

To see local branches, run:

git branch

## Step 3: Create and Switch to demo Branch

If the demo branch already exists remotely, fetch and check it out:

git checkout -b demo origin/demo

OR, if it exists locally:

git switch demo

Verify the current branch:

git branch

## Step 4: Make Changes in demo Branch

Modify a file in your project, then check the modified files:

git status

## Step 5: Stage and Commit Changes

Stage your changes:

git add .

Commit the changes:

git commit -m "Updated test file in demo branch"

## Step 6: Push demo Branch Changes to GitHub

Push your changes to the remote demo branch:

git push origin demo

## Step 7: Switch to main Branch

Return to main before merging:

git switch main

Ensure your local main is up to date:

git pull origin main

## Step 8: Merge demo into main

Merge changes from demo into main:

git merge demo

## Step 9: Push Merged main Branch to GitHub

Push the updated main branch:

git push origin main

## Step 10: Verify Changes

Check the commit history:

git log --oneline --graph --decorate --all