

Task 1: Initialize a Git Repository

You just created a new project folder called PortfolioWebsite. You want to start tracking it with Git.

1. Open Git Bash.
2. Navigate to your folder:

```
cd path/to/PortfolioWebsite
```
3. Initialize Git:

```
Using git init
```

Task 2: Create a New Branch for Feature Development

" Scenario:

You're adding a "Contact Us" form to your site. Instead of working on main, you want to isolate changes.

```
git checkout -b contact-form
```

 used this command

Task 3: Commit Code with Message

" Scenario:

You created the HTML form and want to save it with a descriptive message.

1.

```
vi contact.html
```
2.

```
git add contact.html
```
3.

```
git commit -m "Add Contact Us form"
```

Task 4: Pull Before Push to Avoid Conflicts

" Scenario:

You and your teammate are working on the same branch. Before pushing, you want to ensure you have the latest code.

1.

```
git pull origin contact-form
```
2.

```
git push origin contact-form
```

Task 5: Resolve Merge Conflicts and Push

" Scenario:

After pulling, you hit a conflict in style.css that you and your teammate edited. You fix it manually.

1. Switch to main:

```
git checkout main
```
2. Modify style.css:

```
vi style.css
```

 ("h1 { color: blue; }"),

```
git commit -am "Main branch style updated"
```
3.

```
git checkout contact-form
```

4. `vi.style.css "h1 { color: red; }"`
5. `git commit -am "Contact branch style updated"`
6. `git merge main`
7. we will get a conflict in `style.css`.
8. Resolve manually
9. Open the file, keep your preferred version.
10. `git add style.css`
11. `git commit -m "Resolve conflict in style.css"`

Task 6: Initializing and Committing a Project

Scenario-Based Question:

You've just created a project directory and a couple of files. What Git commands would you use to start tracking the project and save your initial version?

- `git init`
- `git add .`
- `git commit -m "Initial commit"`

Task 7: Connecting Local Repository to GitHub

Scenario-Based Question:

You've completed your local project setup and want to upload it to a new GitHub repository. Which Git commands will you use to connect the remote and push the changes?

1. Create a new repo on GitHub
2. Connect remote: `git remote add origin "url"`
3. `git push -u origin main`

Task 8: Creating and Switching to a New Feature Branch

Scenario-Based Question:

Your team lead has asked you to develop a new login feature without disturbing the main code.

What Git commands should you use to create and switch to a new branch?

- `git checkout -b login-feature`

Task 9: Temporarily Saving Work in Progress

Scenario-Based Question:

You were working on a new feature but suddenly need to switch branches to fix a bug. How do you temporarily save your work without committing?

- git stash
- git checkout bug-fix
- git stash pop

Task 10: Merging Feature Branch into Main Branch

Scenario-Based Question:

You completed a feature in a separate branch and now need to combine it with the main branch after verifying the changes. Which Git commands will help you inspect and perform this merge?

1. Switch to main: git checkout main
2. Pull latest changes: git pull origin main
3. Merge: git merge contact-form
4. Push: git push origin main