1. What commands would you use to stage all the changes and commit them with a meaningful commit message?

git add .

git commit -m "Describe the changes you've made"

2. You have committed changes to a wrong branch. How would you move these commits to the correct branch?

git checkout correct-branch

Cherry-pick the commit(s)

git cherry-pick <commit-hash>

(Optional) Remove the commit from the wrong branch

git checkout wrong-branch

git reset --hard HEAD~1

3. You want to create a new branch, make changes, and push the branch to the remote repository.

git checkout -b new-feature

git add .

git commit -m "Add new feature"

git push origin new-feature

4. You want to contribute to an open-source project hosted on GitHub.

1. Fork the repo on GitHub

2. Clone your fork:

   git clone https://github.com/your-username/repo-name.git

   cd repo-name

3. Add upstream:

   git remote add upstream https://github.com/original-owner/repo-name.git

4. Create a new branch:

```
git checkout -b feature-branch
```

5. Make changes, commit:

```
git add .

git commit -m "Fix: Describe the fix"

git push origin feature-branch
```

6. Create a Pull Request on GitHub

5. You are working on a team project, and there are conflicts between your branch and the main branch.

```
git fetch origin

git checkout your-branch

git merge origin/main

# Resolve conflicts manually, then:

git add resolved-file

git commit
```

6. You want to create a feature branch based on the latest changes in the main branch.

```
git checkout main

git pull origin main

git checkout -b feature-branch
```

7. You have made a series of commits, but you realize that a change made several commits ago is causing issues.

```
git reset --hard <commit-hash>

# If pushed already:

git push origin HEAD --force
```

8. You have accidentally deleted a file in your Git repository and committed the change.

```
git checkout HEAD~1 -- path/to/deleted-file

git add path/to/deleted-file

git commit -m "Restore deleted file"
```