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Lesson 03 Demo 06

Reverting to the Previous Commit

Objective: To demonstrate reverting to the previous commit to undo changes and restore the project to a previous state

Tools required: Git and GitHub

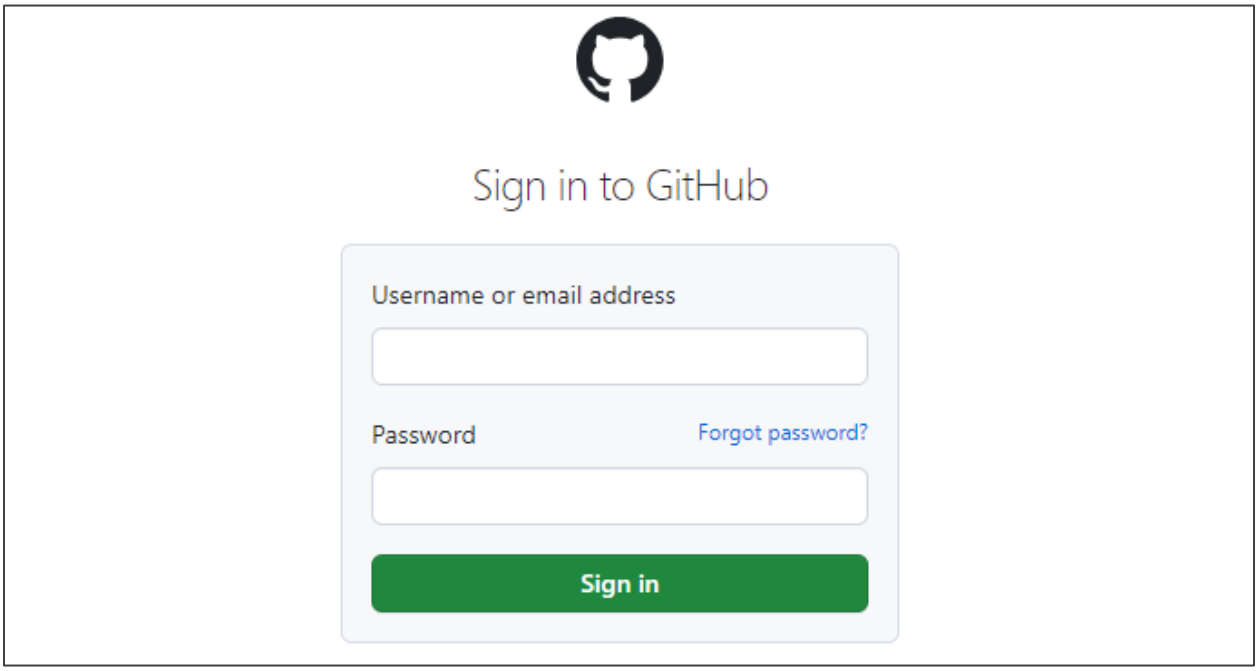
Prerequisites: None

Steps to be followed:

1. Create a new GitHub repository
2. Clone the GitHub repository
3. Revert to the previous commit

Step 1: Create a new GitHub repository

1.1 Open the browser in your lab, go to **github.com**, and log in to your account



Note: If you do not have a GitHub account, visit the official website at **https://github.com /signup** and create a new account

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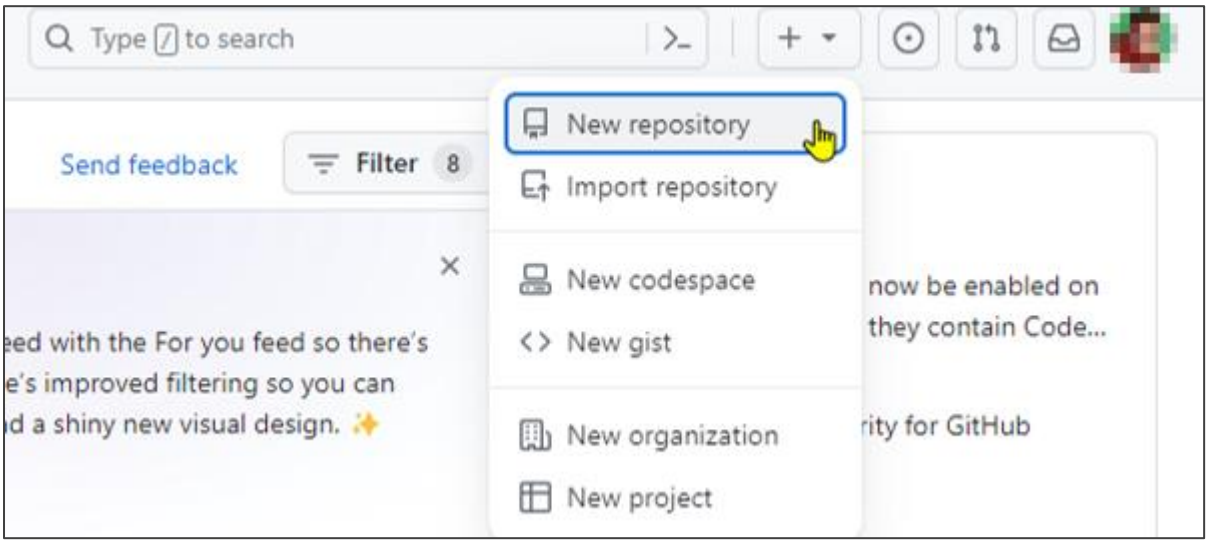
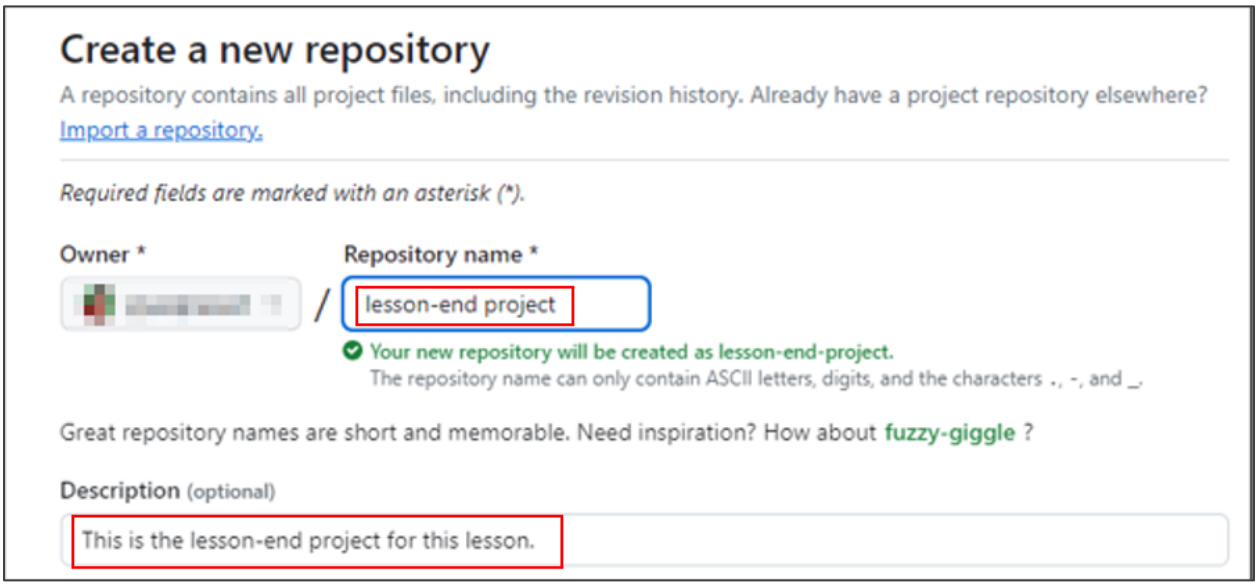
1.2 Click on the **+** icon from the upper-right corner of the page and select **New repository** from the drop-down menu



1.3 Enter the repository name and description as shown in the below screenshot:



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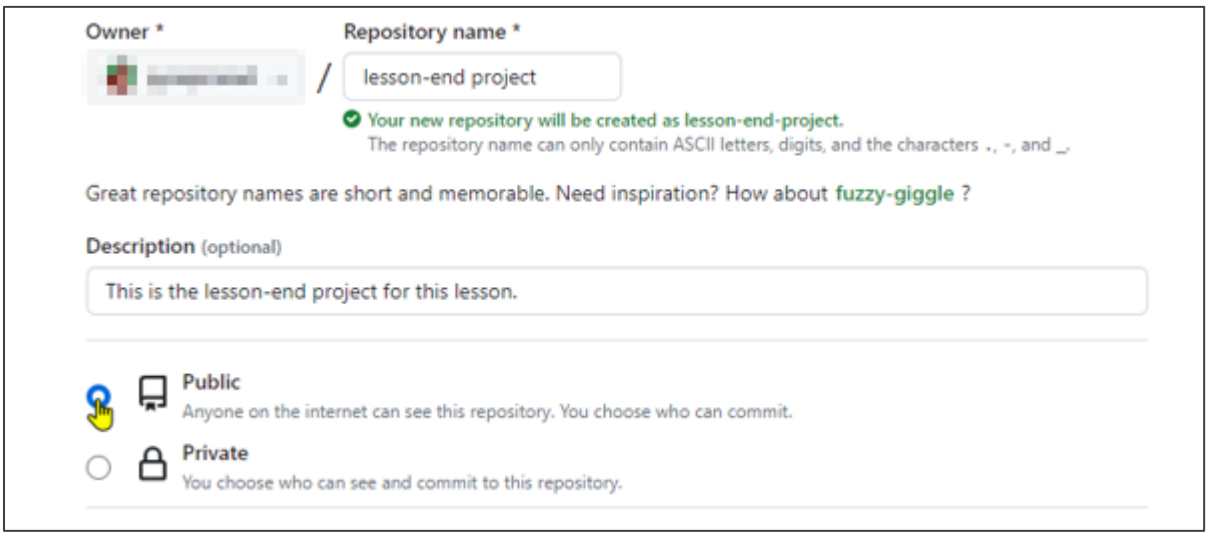
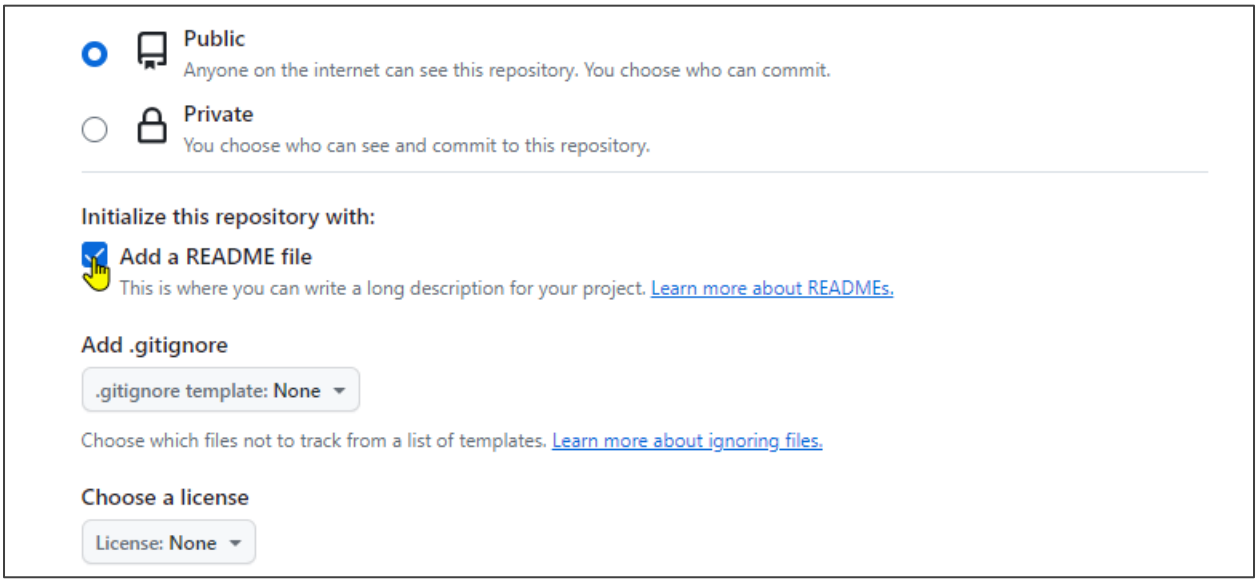
1.4 Choose **Public** for the repository type



1.5 Select **Add a README file** to initialize this repository with a README file



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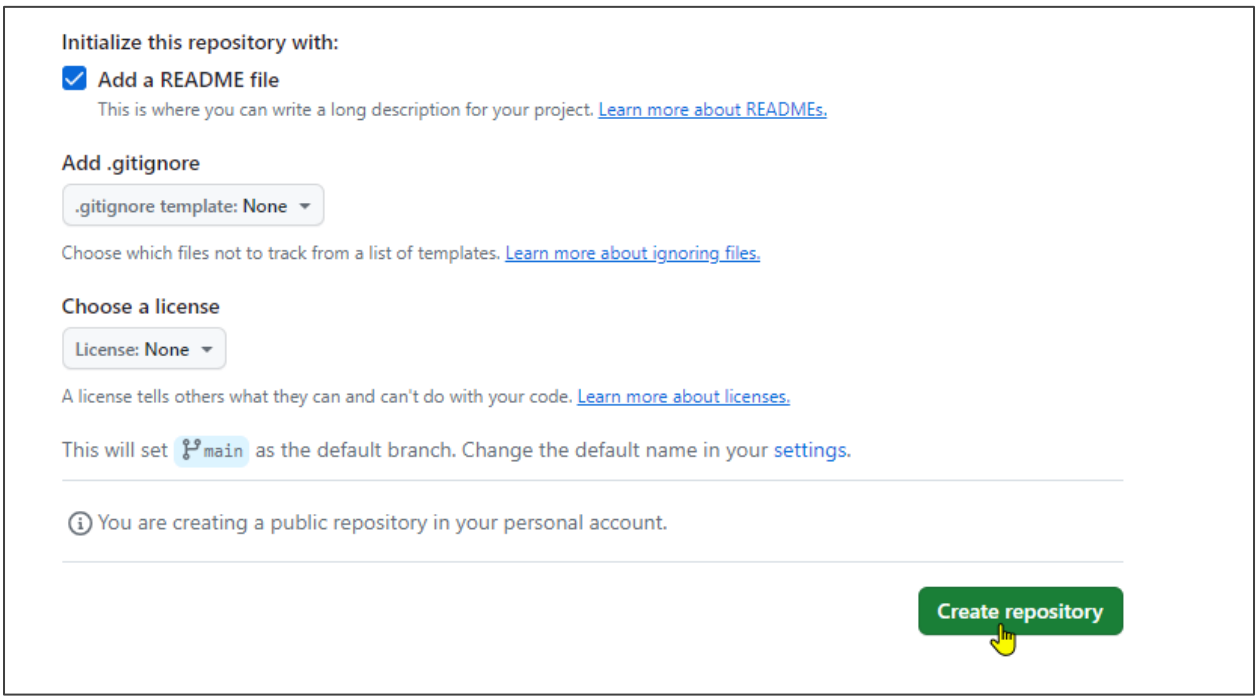
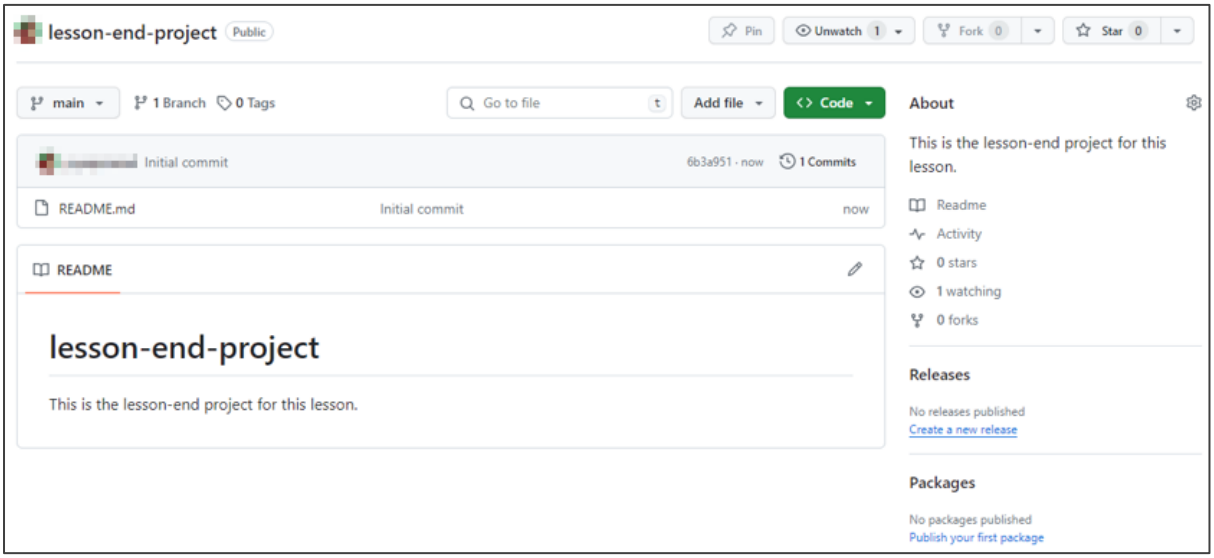
1.6 Click on the **Create repository** button





The remote GitHub repository is created.

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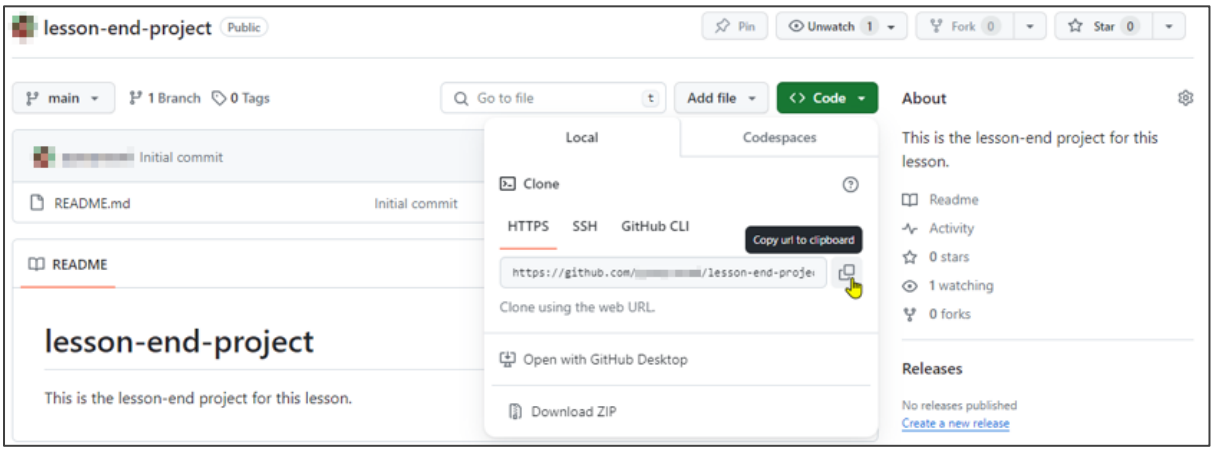
Step 2: Clone the GitHub repository

2.1 Open the created repository and click on the **Code** button to copy the URL provided under HTTPS to clone the repository



2.2 Open the terminal tab on your lab and use the following command to clone the repository:
git clone <URL>

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu$ git clone https://github.com/pyasprasad/lesson-end-project.git
Cloning into 'lesson-end-project'...
remote: Enumerating objects: 9, done.
remote: Counting objects: 100% (9/9), done.
remote: Compressing objects: 100% (6/6), done.
remote: Total 9 (delta 0), reused 6 (delta 0), pack-reused 0
Receiving objects: 100% (9/9), done.
priyanshurajsim@ip-172-31-28-201:~/Priyanshu$
```

> **Note:** Replace the URL with the copied URL from the repository

2.3 Navigate to the cloned repository using the following command:
cd lesson-end-project

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu$ cd lesson-end-project
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$
```

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Step 3: Revert to the previous commit

3.1 Use the command below to create and switch to a new branch:
git checkout -b feature-branch

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$ git checkout -b feature-branch
Switched to a new branch 'feature-branch'
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$
```

3.2 Execute the following commands to create a new file and modify it:
touch example.txt
echo "Hello, this is an example file." > example.txt

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$ touch example.txt
echo "Hello, this is an example file." > example.txt
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$
```

3.3 Run the following commands to add and commit the changes:
git add example.txt
git commit -m "Add example file"

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$ git add example.txt
git commit -m "Add example file"
[feature-branch 3afa0a8] Add example file
 1 file changed, 1 insertion(+)
 create mode 100644 example.txt
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$
```

3.4 Run the following command to push the changes to the **feature-branch** of the remote repository:
git push origin feature-branch

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$ git push origin feature-branch
Username for 'https://github.com': pyasprasad
Password for 'https://pyasprasad@github.com':
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 352 bytes | 352.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'feature-branch' on GitHub by visiting:
remote:      https://github.com/pyasprasad/lesson-end-project/pull/new/feature-branch
remote:
To https://github.com/pyasprasad/lesson-end-project.git
 * [new branch]      feature-branch -> feature-branch
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$
```

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3.5 Run the following commands to further modify the **example.txt**:

touch example.txt

echo "Hello, I am hard coder" > example.txt

```
priyanshurajsim@ip-172-31-69-72:~/Priyanshu/lesson-end-project$ touch example.txt
echo "Hello, I am hard coder" > example.txt
priyanshurajsim@ip-172-31-69-72:~/Priyanshu/lesson-end-project$
```

3.6 Run the following commands to add and commit the changes:

git add example.txt

git commit -m "Modify example file"

```
priyanshurajsim@ip-172-31-69-72:~/Priyanshu/lesson-end-project$ git add example.txt
git commit -m "Modify example file"
[feature-branch 3b37e5e] Modify example file
 1 file changed, 1 insertion(+), 1 deletion(-)
priyanshurajsim@ip-172-31-69-72:~/Priyanshu/lesson-end-project$
```

3.7 Execute the following command to inspect the commit history and identify the commit for reversal:

git log --oneline

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$ git log --oneline
3568892 (HEAD -> feature-branch) Add example file
3afa0a8 (origin/feature-branch) Add example file
803f971 (origin/main, origin/HEAD, main) Added Index.html
1e3e4e7 Initial commit
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$
```

3.8 Run the given command to revert to the preceding commit:

git reset HEAD-1

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$ git reset HEAD~1
Unstaged changes after reset:
M       example.txt
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$
```

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3.9 Run the provided command to verify the commit history and confirm the successful reversal:
git log --oneline

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$ git log --oneline
3afa0a8 (HEAD -> feature-branch, origin/feature-branch) Add example file
803f971 (origin/main, origin/HEAD, main) Added Index.html
1e3e4e7 Initial commit
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$
```

By following these steps, you have successfully demonstrated reverting to the previous commit to undo changes and restore the project to a previous state.