

## Lesson 02 Demo 05

### Switching Branches in Git

**Objective:** To demonstrate how to switch branches in Git to understand the branch management and version control workflows in GitHub

**Tools required:** Git and GitHub

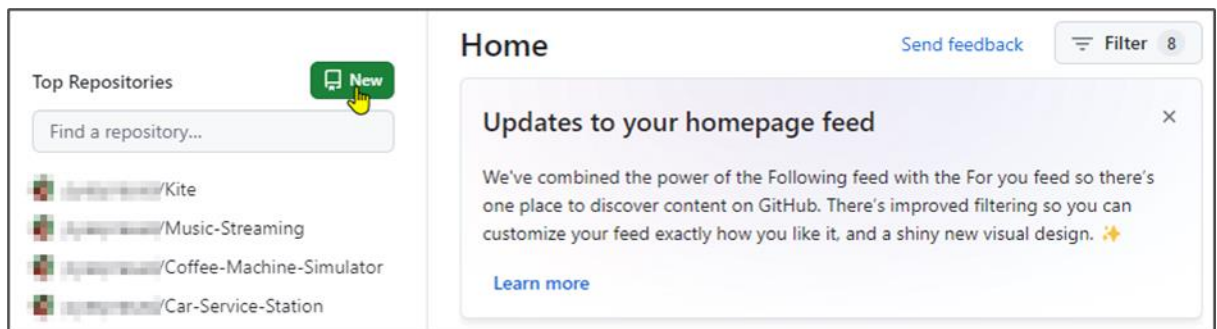
**Prerequisites:** You need to have Git installed to proceed with this demo.

Steps to be followed:

1. Create a new GitHub repository
2. Clone the GitHub repository
3. List all the branches in your repository
4. Create and switch to the new branch
5. Create a file and commit the changes
6. Switch back to the main branch

#### Step 1: Create a new GitHub repository

1.1 Click on the **New** button to create a new repository



1.2 Enter the repository name and click on the **Create repository** button


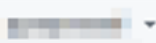
## Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

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*Required fields are marked with an asterisk (\*).*

Owner \*

  ▾

Repository name \*


✔ Your new repository will be created as lesson-end-project.  
The repository name can only contain ASCII letters, digits, and the characters ., -, and \_.

Great repository names are short and memorable. Need inspiration? How about **fuzzy-giggle** ?


Description (optional)

License: None ▾

A license tells others what they can and can't do with your code. [Learn more about licenses.](#)

This will set  main as the default branch. Change the default name in your [settings](#).

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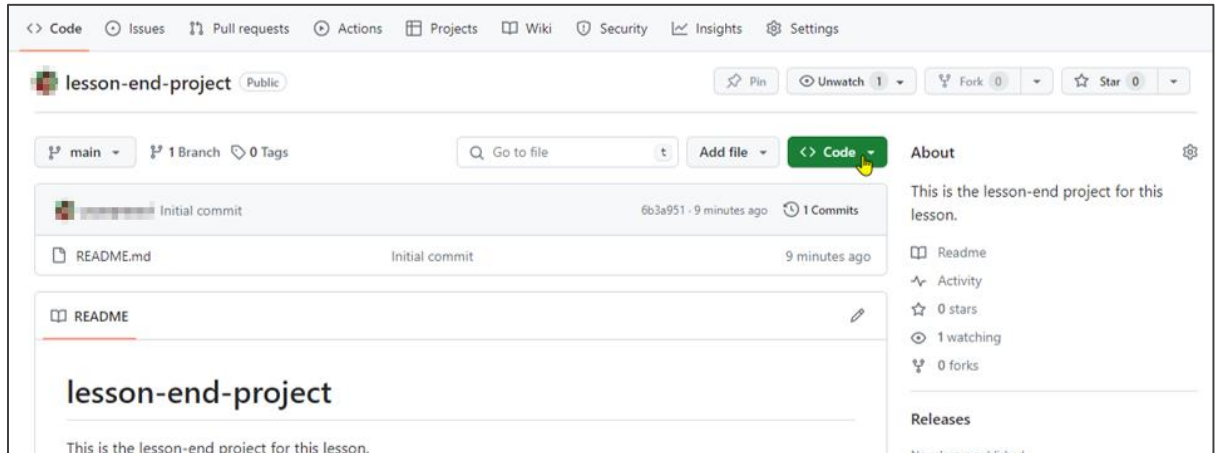
 You are creating a public repository in your personal account.

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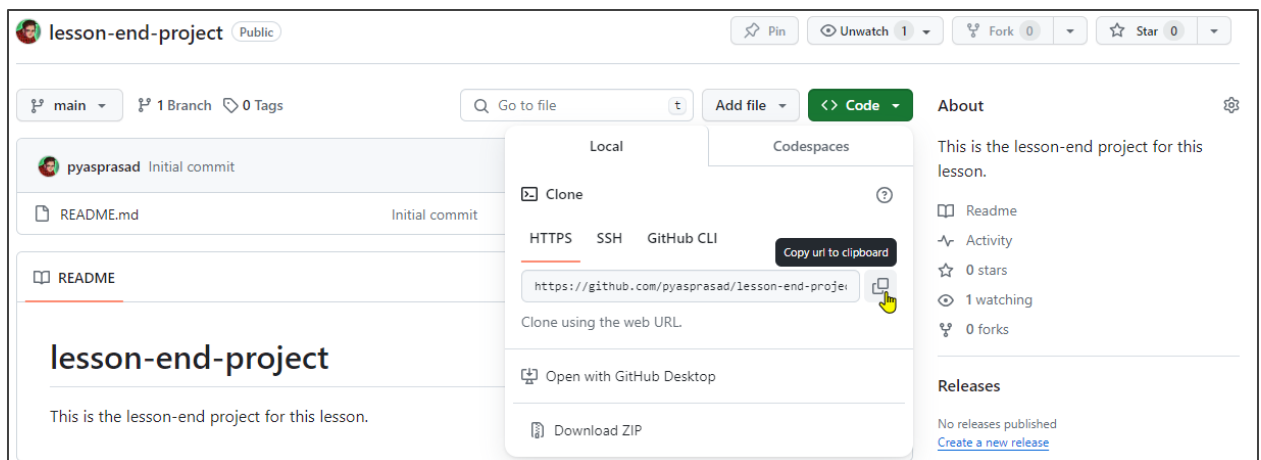
Create repository

## Step 2: Clone the GitHub repository

### 2.1 Open the created repository in GitHub and click on the **Code** button



### 2.2 Click on the copy icon to copy the **HTTPS URL**, as shown below:



### 2.3 Open the terminal tab on your lab and use the following command to clone the repository:

**git clone <URL>**

```
prianshurajs@ip-172-31-28-201:~/Prianshu$ git clone https://github.com/pyasprasad/lesson-end-project.git
Cloning into 'lesson-end-project'...
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 6 (delta 0), reused 3 (delta 0), pack-reused 0
Receiving objects: 100% (6/6), done.
prianshurajs@ip-172-31-28-201:~/Prianshu$
```

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

## Step

### 3: List all the branches in your repository

3.1 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$
```

3.2 Run the below command to display all repository branches:

**git branch**

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$ git branch
* main
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$
```

### Step 4: Create and switch to the new branch

4.1 Run the following command to create a new branch in your repository:

**git branch dev**

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

4.2 Use the following command to switch to the newly created branch:

**git checkout dev**

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

## Step 5: Create a file and commit the changes

5.1 In the **dev** branch, execute the following command to create a file:

**vi index.html**

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$ vi index.html
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$
```

5.2 Add the given code snippet into the **index.html** file:

```
<html>
  <body>
    <p> This is a Test HTML file. </p>
  </body>
</html>
```

```
<html>
  <body>
    <p> This is a Test HTML file. </p>
  </body>
</html>
```

**Note:** Press **i** to edit the files. Press the **Esc** button to exit insert mode and enter **:wq** to

5.3 save the file

s

Execute the following command to add the **index.html** file to the **dev** branch:

**git add .**

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$ git add .
[dev 803f971] Added Index.html
1 file changed, 6 insertions(+)
create mode 100644 index.html
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$
```

5.4 Use the following command to commit the changes:

**git commit -m "Added Index.html"**

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$ git commit -m "Added Index.html"
[dev 803f971] Added Index.html
1 file changed, 6 insertions(+)
create mode 100644 index.html
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$
```

5.5 Check the status of the new branch using the following command:

**git status**

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$ git status
On branch dev
nothing to commit, working tree clean
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$
```

## Step 6: Switch back to the main branch

6.1 Use the following command to switch back to the main branch:

**git checkout main**

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/lesson-end-project$
```

By following these steps, you have successfully demonstrated how to switch branches in Git, aiming to understand branch management and version control workflows in GitHub.