

# Exercise: Managing a project in GitHub

[Launch Lab](#)

## Instructions

### Learning Objectives

- Fork a repository
- Clone the forked repository
- Update a file
- Inspect the file using the `diff` command
- Commit and push the file to the forked repository

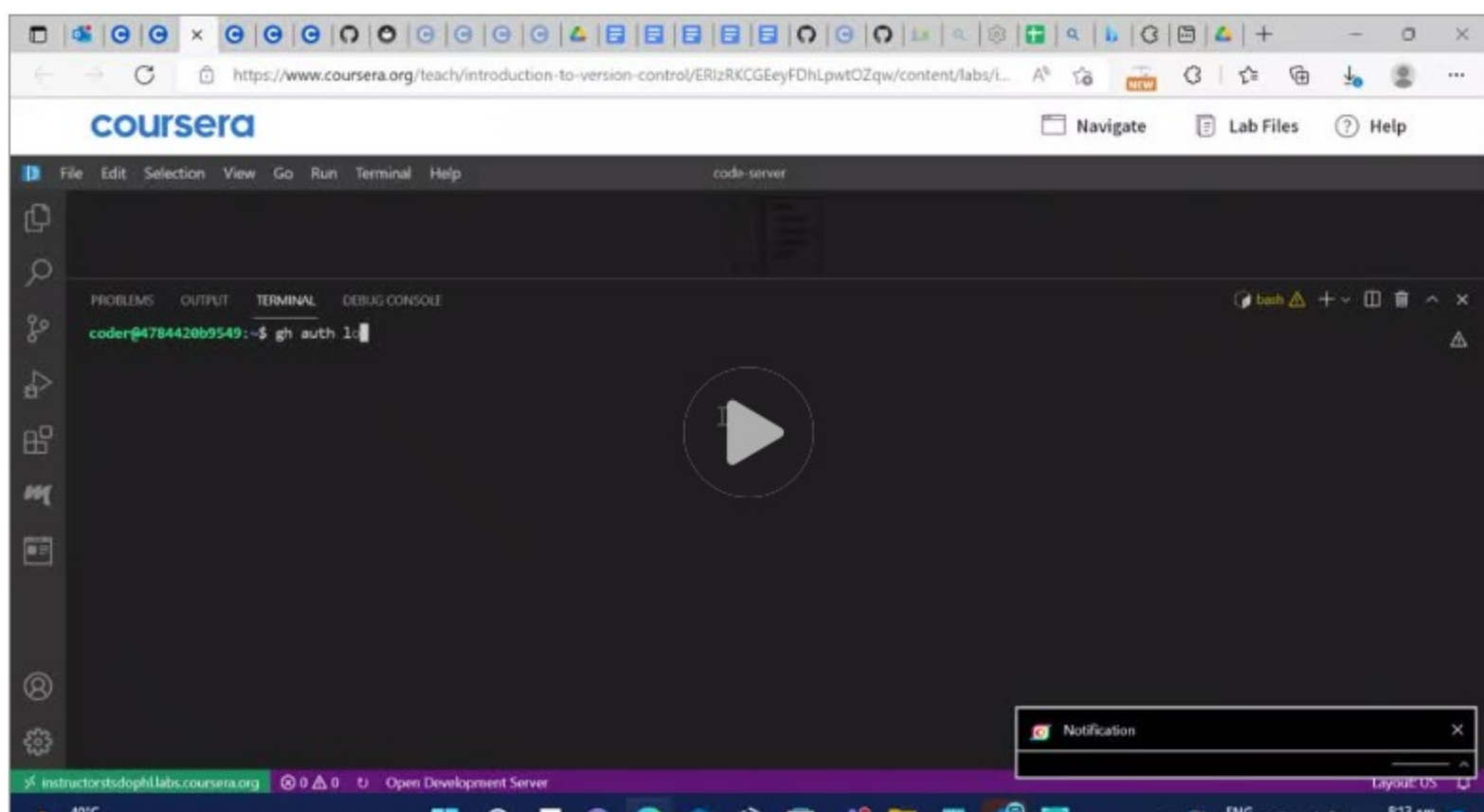
### Instructions

In the following exercises, you're going to fork a repository and inspect the diff output of a changed file.

If you're managing a Github repository, inspecting file changes is an important part of maintaining the repository.

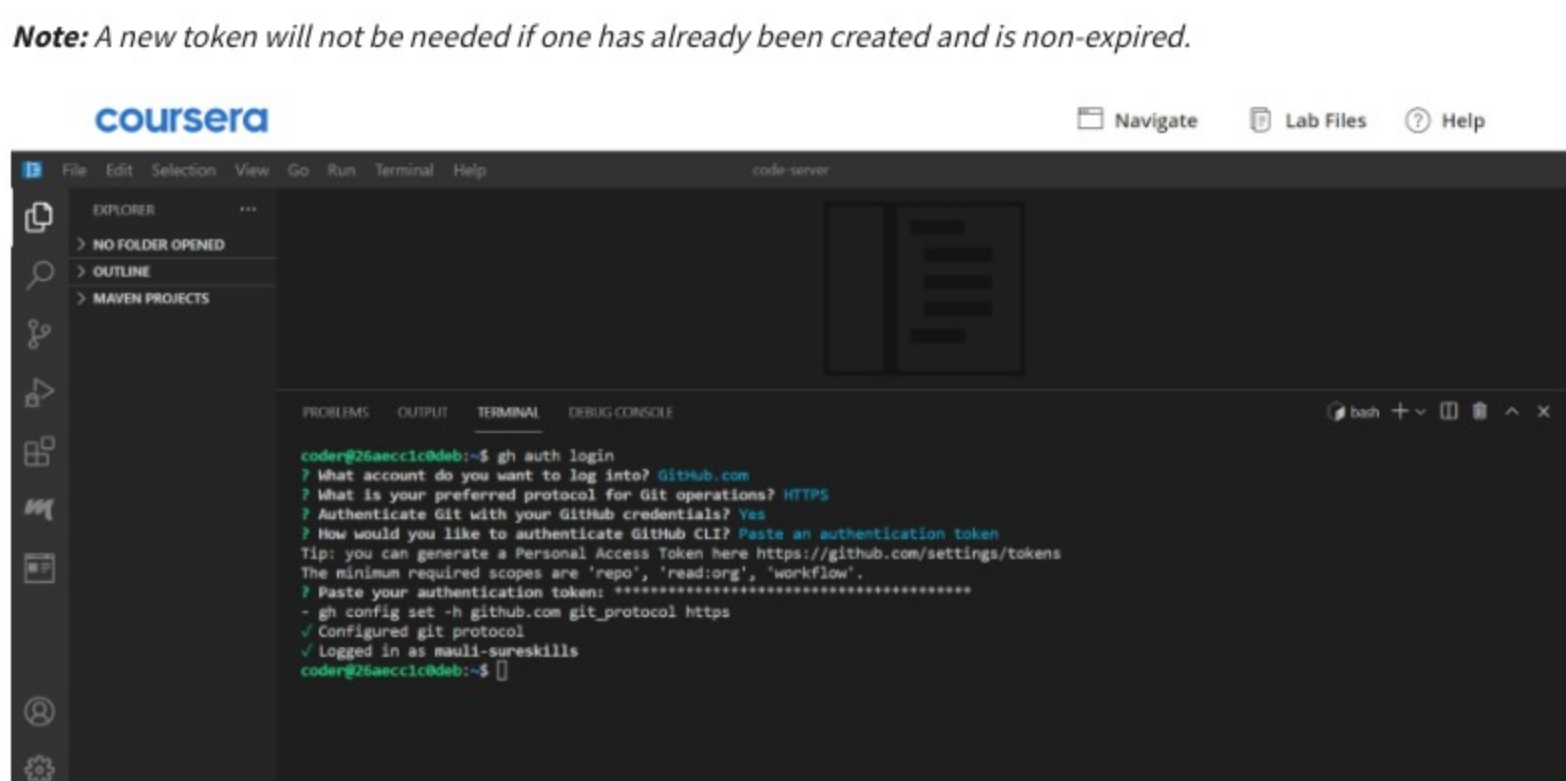
**Step 1:** Open the Terminal and authenticate using `gh` (Github CLI):

```
gh auth login
```

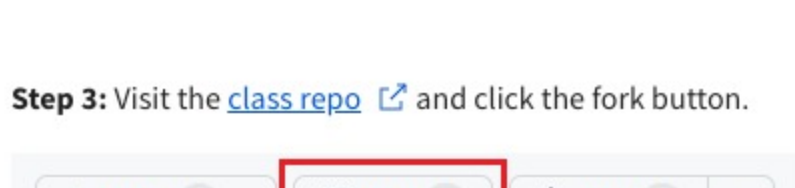


**Step 2:** Create an authentication token in your Github account with specified scopes given in the terminal. Copy it from Github and paste it. Verify authorization was successful.

**Note:** A new token will not be needed if one has already been created and is non-expired.



**Step 3:** Visit the [class repo](#) and click the fork button.



**Step 4:** Select the owner from the dropdown and add a description (optional) and then click the Create fork button.

## Create a new fork

A *fork* is a copy of a repository. Forking a repository allows you to freely experiment with changes without affecting the original project. [View existing forks.](#)

Owner \*  / Repository name \*

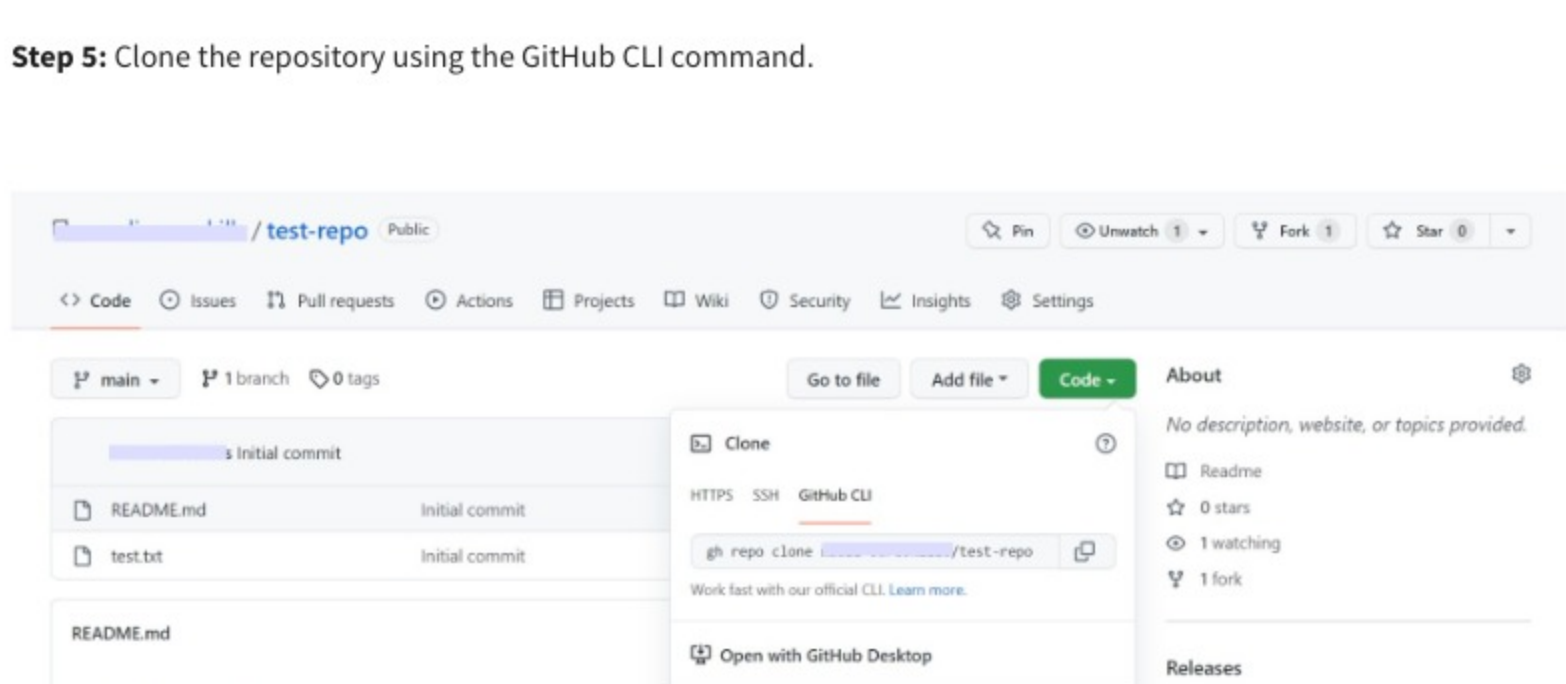
By default, forks are named the same as their parent repository. You can customize the name to distinguish it further.

Description (optional)

*i* You are creating a fork in your personal account.

[Create fork](#)

**Step 5:** Clone the repository using the GitHub CLI command.



```
gh repo clone <YOUR USERNAME>/<REPOSITORY-NAME>
```

**Step 6:** Move to the repo directory by using `cd <REPOSITORY-NAME>`

**Step 7:** Open the file named `class.txt`

**Step 8:** Replace the content of the file with the contents below.

```
1 Crimson
2 Orange
3 Blue
4 Cyan
5 Yellow
6 Charcoal
7 Khaki
8 Coral
9 Silver
10 Fuchsia
11 Purple
12 Brown
13 Red
```

**Step 9:** Save the file

**Step 10:** Using the diff command, note which lines were deleted and which lines were added.

```
git diff
```

**Step 11:** Add the file and commit it to the repository with a message.

```
git add class.txt
```

```
git commit -m 'some message'
```

**Step 12:** Push the commit to the forked repository.

```
git push
```