# Lesson-End Project

# Creating and Managing a Git Repository for HTML Project Deployment

**Project agenda:** To create and manage a Git repository for a basic HTML project, simulating a real-world version control workflow. The process includes initializing a local repository, staging and committing project files, linking the repository to a remote GitHub repository, and pushing the code to the remote server.

**Description:** This project includes setting up a Git-based version control workflow for a simple HTML website. You are tasked with creating a local project directory, adding HTML files (index.html and schedule_meeting.html), writing a ReadMe.md file for documentation, and initializing a Git repository. The repository should then be connected to a remote GitHub repository, where all project files are committed and pushed.

**Tools required:** GitHub

**Prerequisites:** Basic understanding of GitHub

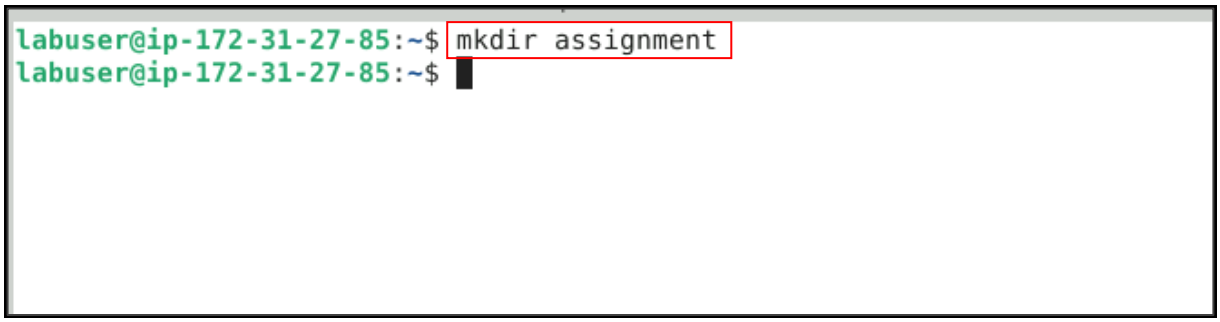
**Expected deliverables**: A structured project directory and a fully configured Git repository for a basic HTML website, including a ReadMe.md file with descriptive documentation. The deliverables will demonstrate a complete Git workflow, starting from local repository initialization, staging and committing files, to configuring a remote origin and pushing code to GitHub.

Steps to be followed:

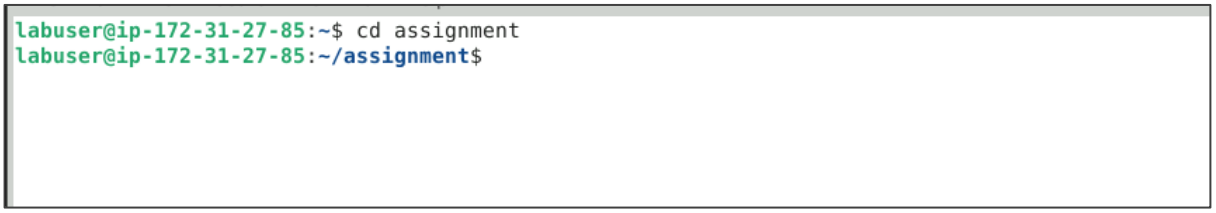
1. Create the project directory
2. Add HTML files to the project directory
3. Create a ReadMe.md file
4. Initialize a local Git Repository
5. Create a remote Repository on GitHub
6. Add the remote origin
7. Stage files for commit
8. Push the code to GitHub

## Step 1: Create the project directory

1.1 Open your terminal and run the following command to create a new directory:
**mkdir assignment**




1.2 Enter the following command to navigate to the newly created directory:
**cd assignment**



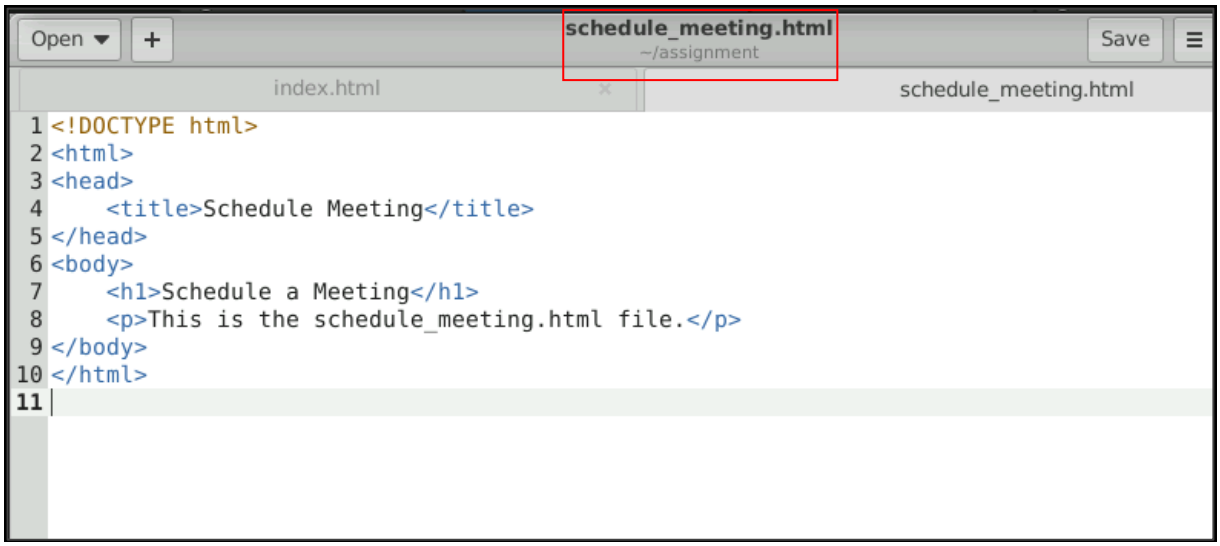
## Step 2: Add HTML files to the project directory

2.1 Open the text editor, create a file named index.html, and save it in the assignment folder; add the code below inside the file:

```
<!DOCTYPE html>
<html>
<head>
  <title>Home Page</title>
</head>
<body>
  <h1>Welcome to the Git Assignment Homepage</h1>
  <p>This is the index.html file.</p>
</body>
</html>
```


2.2 Open the text editor, create a file named **schedule_meeting.html,** save it in the assignment folder, and add the code below inside the file:

```
<!DOCTYPE html>
<html>
<head>
  <title>Schedule Meeting</title>
</head>
<body>
  <h1>Schedule a Meeting</h1>
  <p>This is the schedule_meeting.html file.</p>
</body>
</html>
```




## Step 3: Create a ReadMe.md file

3.1 Open the text editor and create a **ReadMe.md** file and save it in the assignment folder, add the line below inside the file:

**This project contains two files: 'index.html' and 'schedule_meeting.html'.**

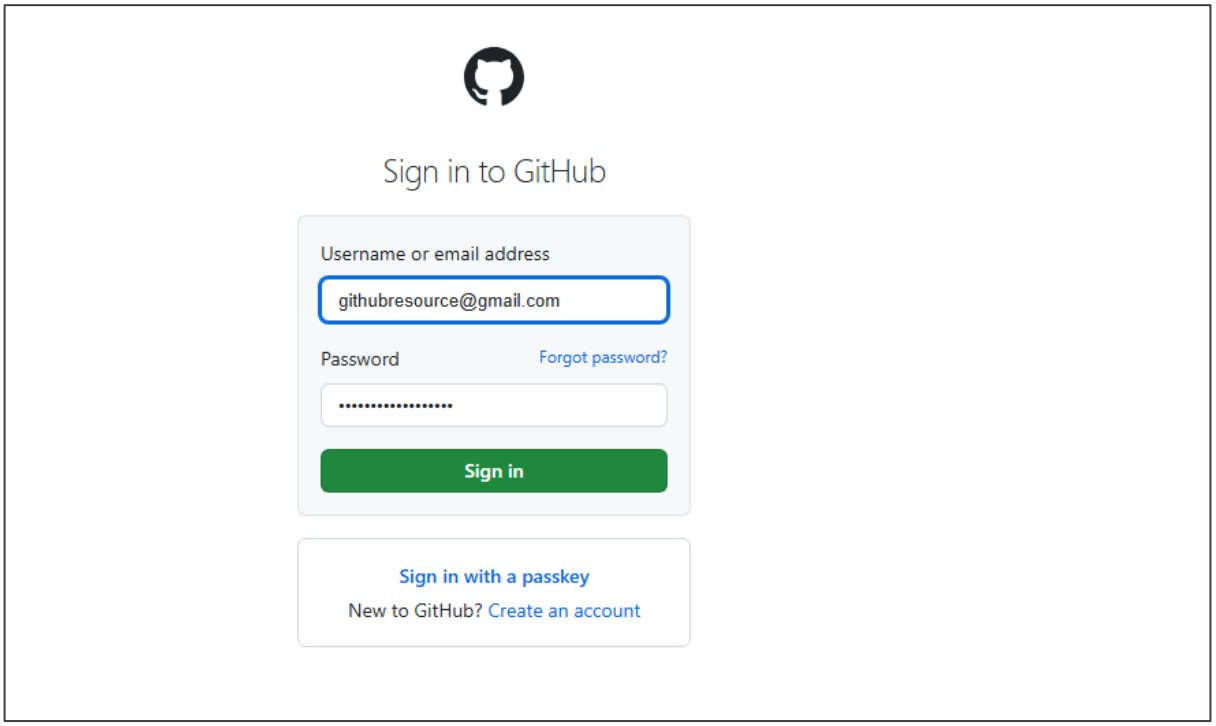
## Step 4: Initialize a local Git Repository

4.1 Open the terminal, in the assignment folder, run the command below:
**git init**

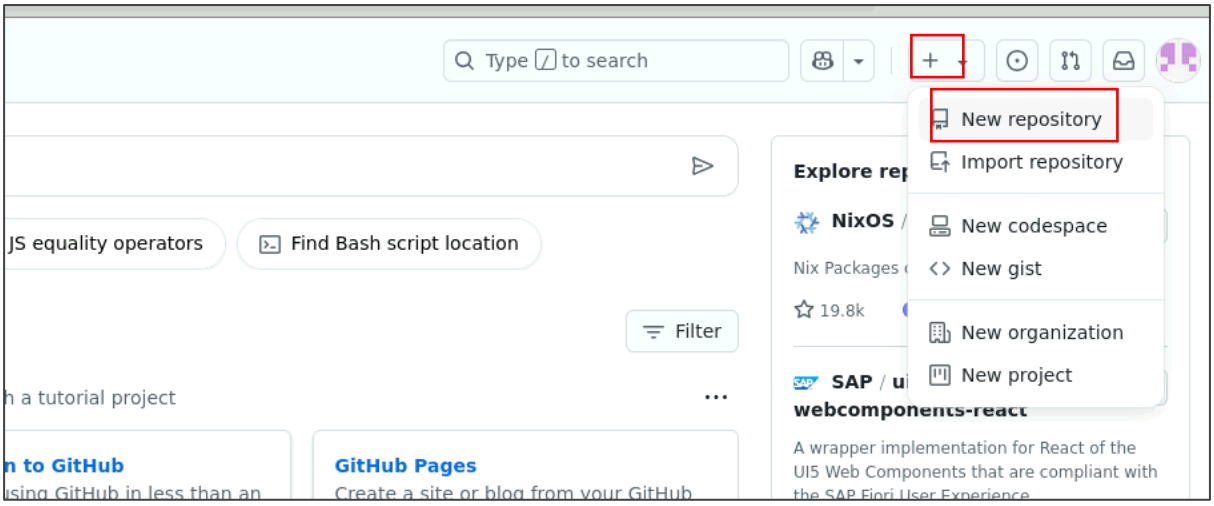
```
labuser@ip-172-31-27-85:~/assignment$ git init
hint: Using 'master' as the name for the initial branch. This default branch nam
e
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /home/labuser/assignment/.git/
labuser@ip-172-31-27-85:~/assignment$
```

## Step 5: Create a remote Repository on GitHub

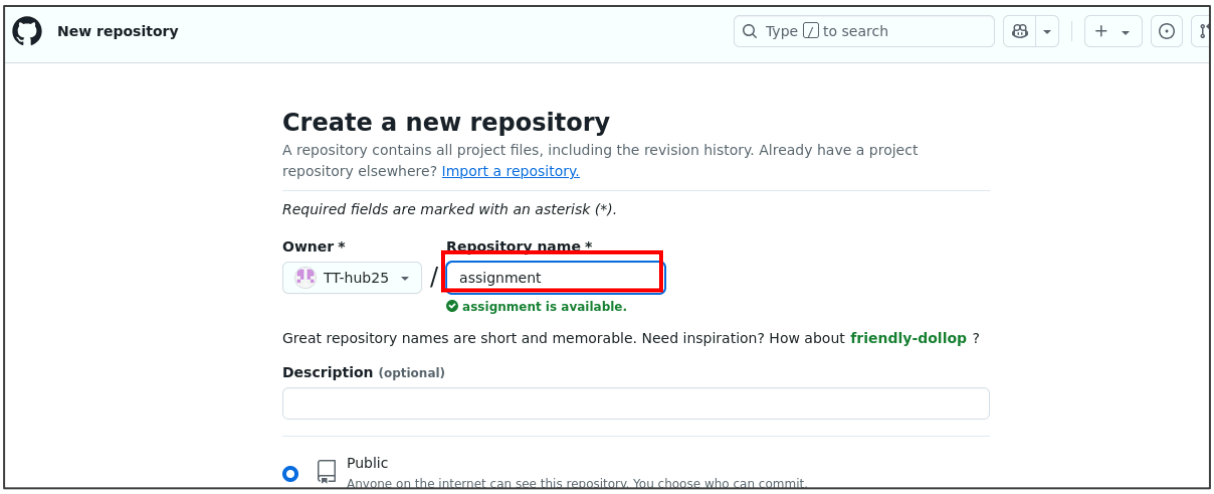
5.1 Login to your GitHub account

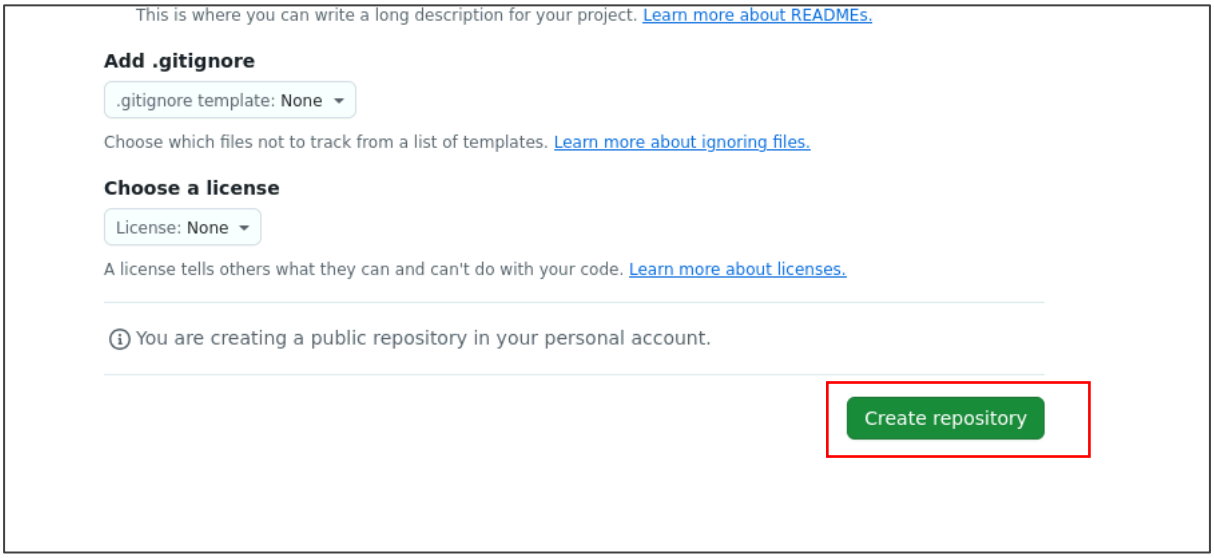


5.2 Click on **+** and select **New repository**




5.3 Enter the Repository name as **assignment** and click on **Create repository**



## Step 6: Add the remote origin

6.1 In your terminal, link the local repo with the remote repository by executing the command below:
**git remote add origin https://github.com/yourusername/assignment.git**

```
Initialized empty Git repository in /home/labuser/assignment/.git/
labuser@ip-172-31-27-85:~/assignment$ git remote add origin https://github.co/TT-hub25/assignment.git
labuser@ip-172-31-27-85:~/assignment$
```

> **Note:** In the above command, replace **yourusername** with your GitHub username.

## Step 7: Stage files for commit

7.1 In the terminal, add all files in the directory to the staging area using the command below:
**git add .**

```
labuser@ip-172-31-27-85:~/assignment$ git add .
labuser@ip-172-31-27-85:~/assignment$
```

7.2 Run the command below to check which files are staged and ready to commit:
**git status**

```
labuser@ip-172-31-27-85:~/assignment$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   Readme.md
        new file:   index.html
        new file:   schedule_meeting.html

labuser@ip-172-31-27-85:~/assignment$
```

7.3 Commit the staged files with a meaningful message using the command below:
**git commit -m "Initial commit with HTML files and README"**

```
labuser@ip-172-31-27-85:~/assignment$ git commit -m "Initial commit with HTML files and README"
Author identity unknown

*** Please tell me who you are.

Run

  git config --global user.email "you@example.com"
  git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: empty ident name (for <labuser@ip-172-31-27-85.ec2.internal>) not allowed
labuser@ip-172-31-27-85:~/assignment$
```

## Step 8: Push the code to GitHub

8.1 Push the code to the remote repository's master branch using the command below:
**git push -u origin master**

```
labuser@ip-172-31-27-85:~/assignment$ git push -u origin master
Username for 'https://github.com': TT-hub25
Password for 'https://TT-hub25@github.com':
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 2 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 648 bytes | 648.00 KiB/s, done.
Total 5 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/TT-hub25/assignment.git
 * [new branch]      master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.
labuser@ip-172-31-27-85:~/assignment$
```

By following these steps, you have successfully created and managed a Git repository for a basic HTML project, simulating a real-world version control workflow.