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Lesson 02 Demo 02

Pushing a File to the GitHub Repository

Objective: To demonstrate the process of pushing a file to a GitHub repository using Git commands for version control and collaboration

Tools required: Git and GitHub

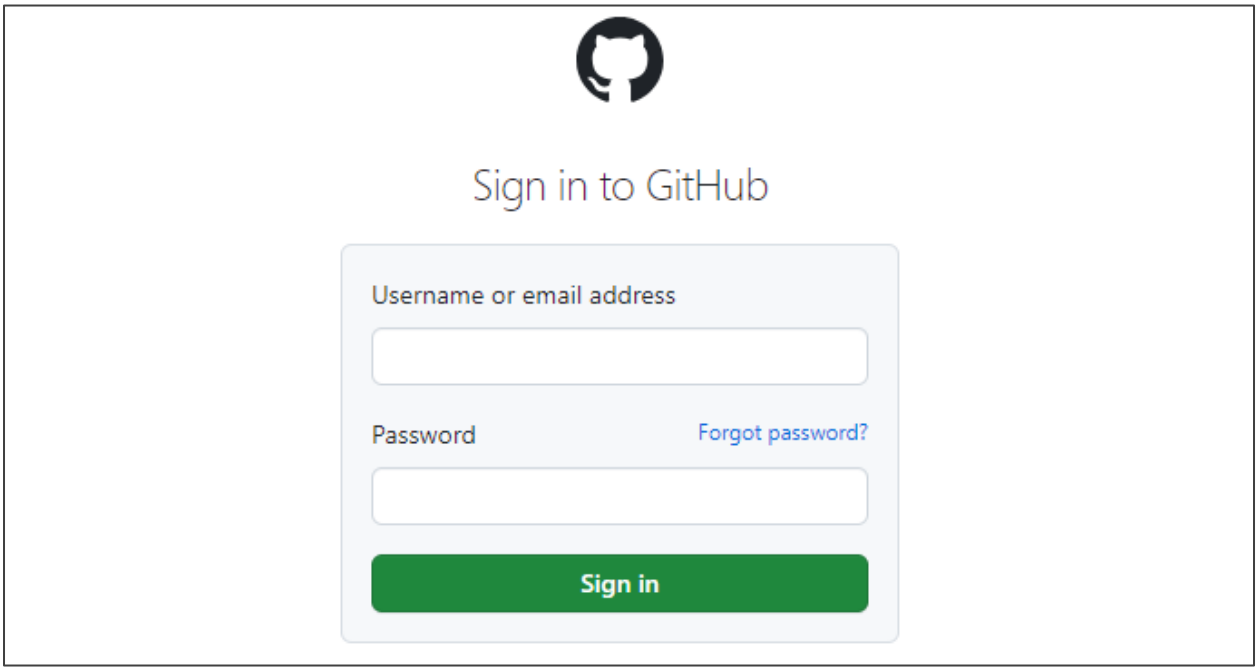
Prerequisites: You need to have Git installed to proceed with this demo.

Steps to be followed:

1. Create a GitHub repository
2. Create a repository on the local machine
3. Push the changes in the local repository to GitHub
4. Check the status of the local and remote repository

Step 1: Create a GitHub repository

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



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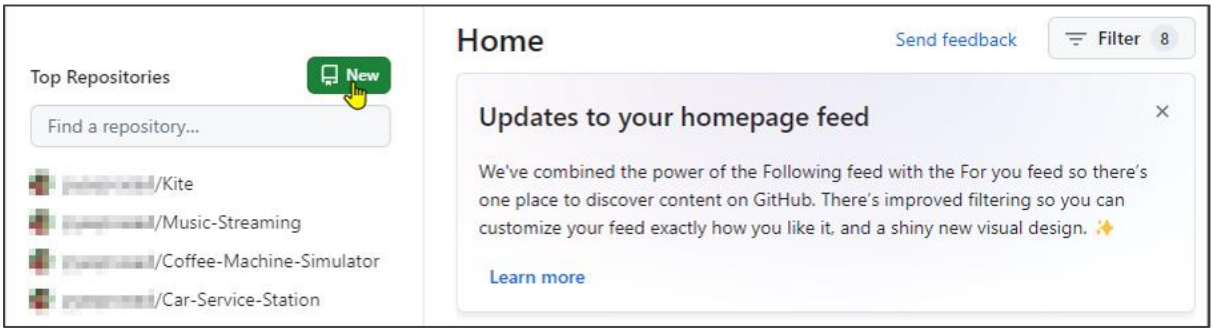
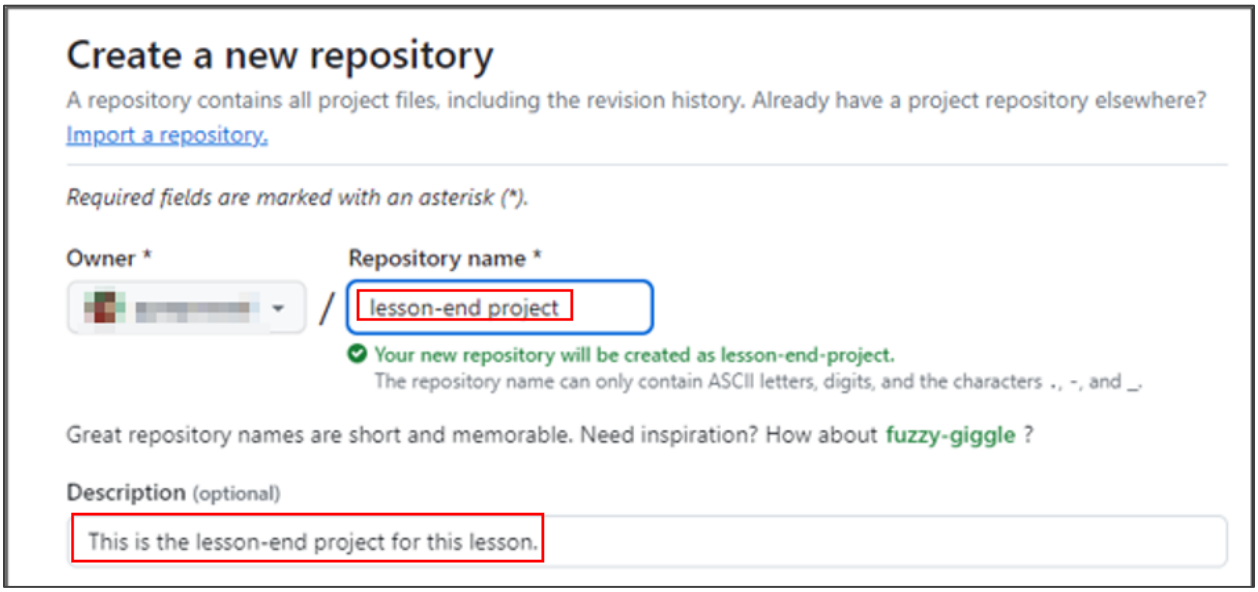
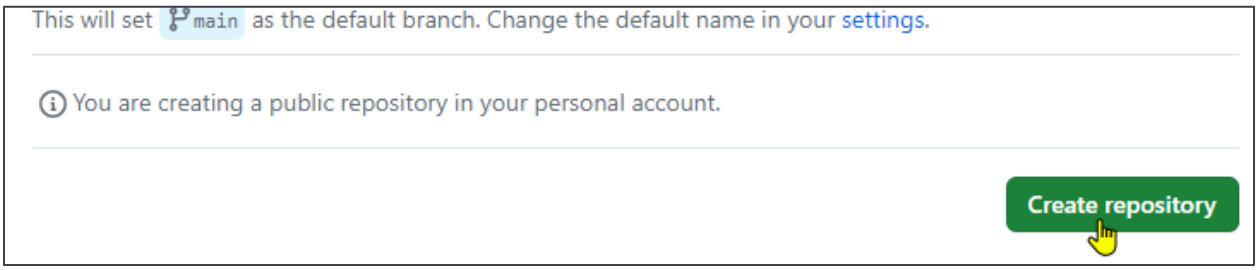
Note: If you do not have a GitHub account, visit the official website at https://github.com/signup and create a new account

1.2 Click on the **New** button to create a new GitHub repository



1.3 Enter the repository name and description, then click the **Create repository** button





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Step 2: Create a repository on the local machine

2.1 Open the terminal tab in your lab, and execute the following command to create a new project directory:
mkdir createnewproject

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu$ mkdir createnewproject
priyanshurajsim@ip-172-31-28-201:~/Priyanshu$
```

2.2 Run the following command to change the directory:
cd createnewproject

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu$  cd createnewproject
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$
```

2.3 Create a README file using the following command:
echo "# create new file for my project" >> README.md

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$  echo "# create new file for my project" >> README.md
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$
```

2.4 Initialize the Git repository using the following command:
git init

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$ git init
hint: Using 'master' as the name for the initial branch. This default branch name
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/priyanshurajsim/Priyanshu/createnewproject/.git/
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$
```

2.5 Add the README file using the command given below:
git add .

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$ git add .
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$
```

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2.6 Use the following command to commit the changes:
git commit -m "Added README file"

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$ git commit -m "Added README file"
[master (root-commit) c5f0069] Added README file
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$
```

Step 3: Push the changes in the local repository to GitHub

3.1 Open the **Terminal** and add a remote repository using the following command:
git remote add origin <URL>

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$ git remote add origin https://github.com/pyasprasad/lesson-end-project.git
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$
```

> **Note**: While creating the remote repository, copy the HTTPS URL

3.2 Push the changes to the remote repository using the following command:
git push -u origin master

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$  git push -u origin master
Username for 'https://github.com': pyasprasad
Password for 'https://pyasprasad@github.com':
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 261 bytes | 261.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'master' on GitHub by visiting:
remote:      https://github.com/pyasprasad/lesson-end-project/pull/new/master
remote:
To https://github.com/pyasprasad/lesson-end-project.git
 * [new branch]      master -> master
% branch 'master' set up to track 'origin/master'.
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$
```

> **Note**: After executing the Git push command, you will be asked to enter the username and password for your GitHub account.

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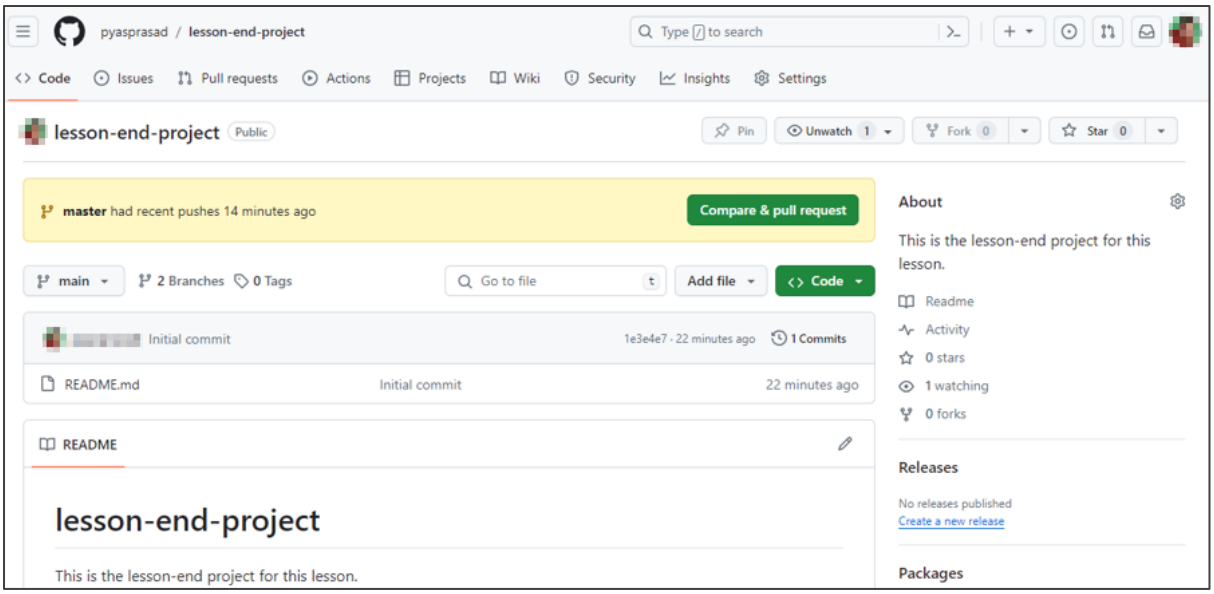
Step 4: Check the status of the local and remote repository

4.1 Run the following command to check the status of the local repository:
git status

```
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$ git status
On branch master
Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean
priyanshurajsim@ip-172-31-28-201:~/Priyanshu/createnewproject$
```

4.2 Visit **github.com** to inspect the remote repository



By following these steps, you've effectively demonstrated the process of pushing a file to a GitHub repository using Git commands for version control and collaboration.