

## Lesson 01 Demo 01

### Creating and Cloning a GitHub Repository

**Objective:** To create and clone a GitHub repository for managing, tracking, and collaborating on code efficiently

**Prerequisite:** GitHub Account

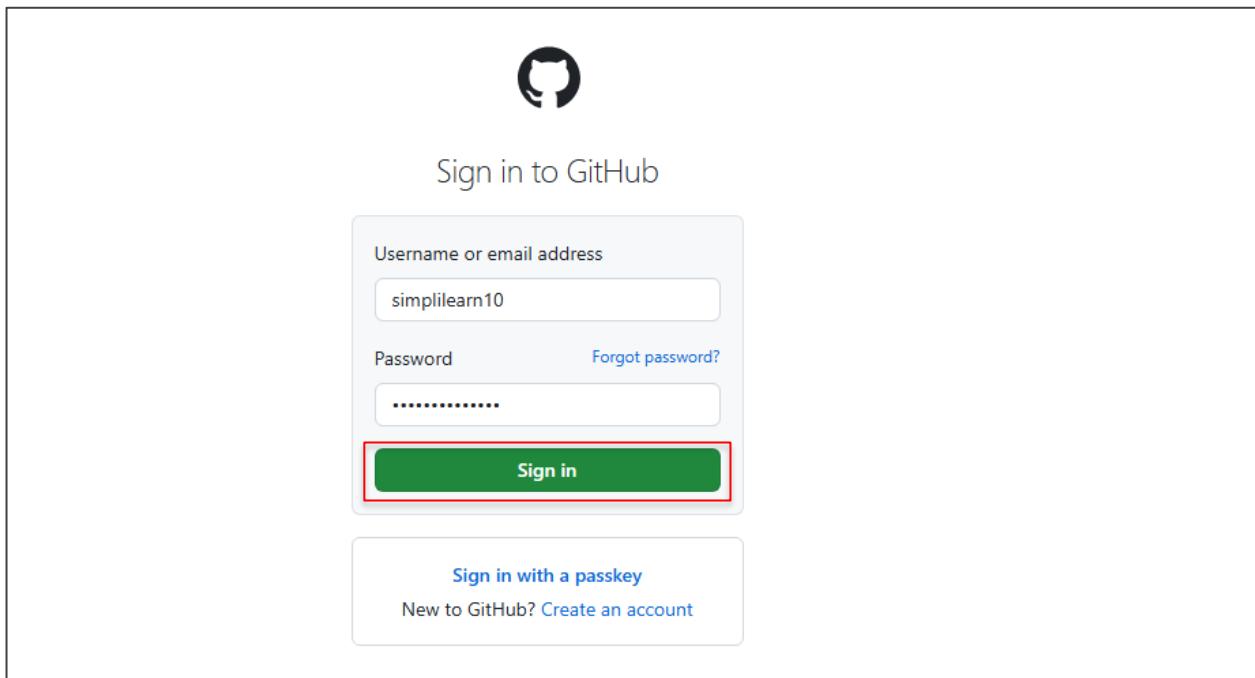
**Tools required:** Git

Steps to be followed:

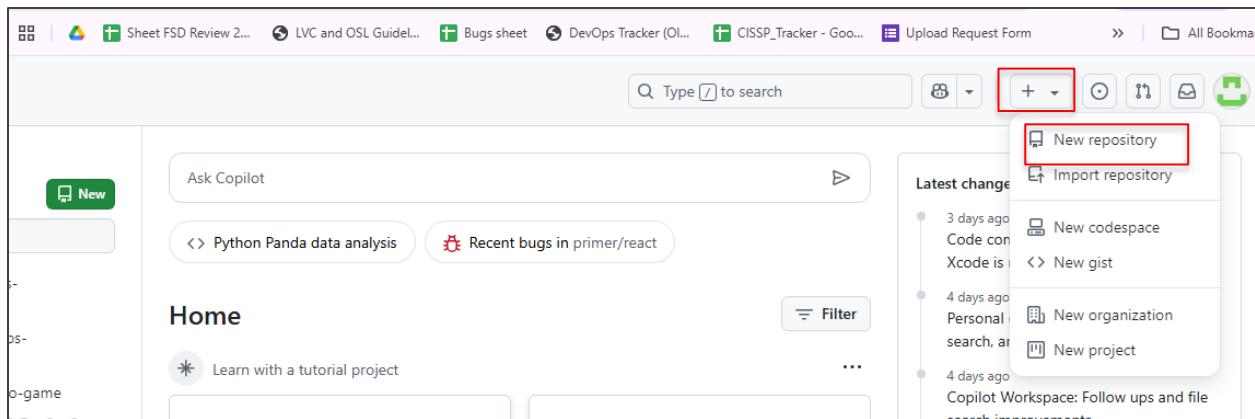
1. Create a new GitHub repository
2. Edit the README file
3. Create a file in the repository
4. Clone the GitHub repository

## Step 1: Create a new GitHub repository

1.1 Open a browser in your lab, go to [github.com](https://github.com), and log in to your account



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**, choose **Public**, select **Initialize this repository with a README**, 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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Owner \*  / Repository name \*  

Great repository names are short and descriptive. Your new repository will be created as sample-repository, [s-doodle?](#)

Description (optional)

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 **Public**  
Anyone on the internet can see this repository. You choose who can commit.

 **Private**  
You choose who can see and commit to this repository.

---

Initialize this repository with:

Skip this step if you're importing an existing repository.

**Add a README file**  
This is where you can write a long description for your project. [Learn more.](#)

**Add .gitignore**  
Choose which files not to track from a list of templates. [Learn more.](#)

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

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

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**Create repository**

## Step 2: Edit the README file

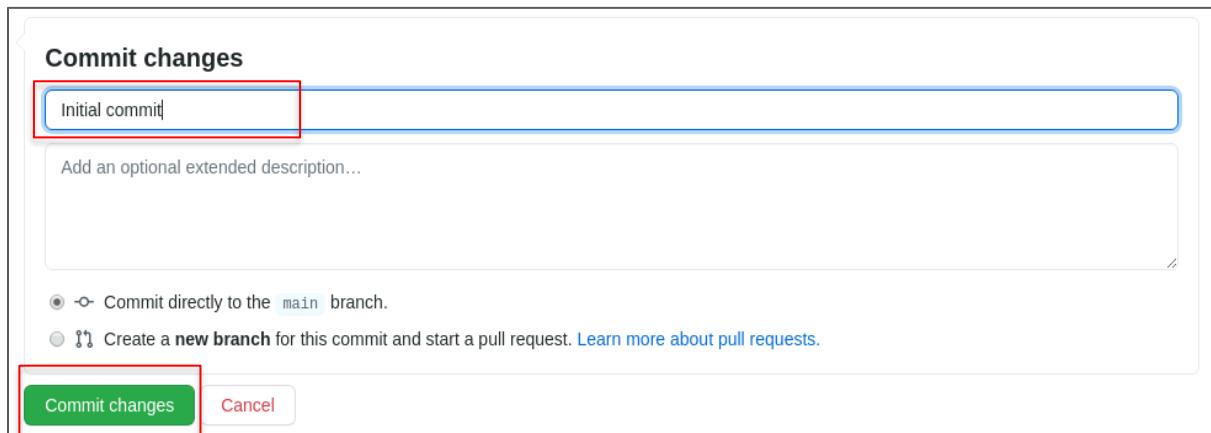
1.1 Click on the Edit icon to edit the README.md file

The screenshot shows a GitHub repository named "sample-repository". The "Code" tab is selected. Below it, there's a summary: "main" branch, 1 branch, 0 tags. Buttons for "Go to file", "Add file", and "Code" are available. A commit history is shown with one entry: "Initial commit" by "GitHub User" (b2945b0) 2 hours ago. The README.md file is listed with its content: "sample-repository" and "This is a sample repository.". To the right of the file name, there's an edit icon (pencil), which is highlighted with a red box.

1.1 Add some text in the README file (Example: We have edited the README file.)

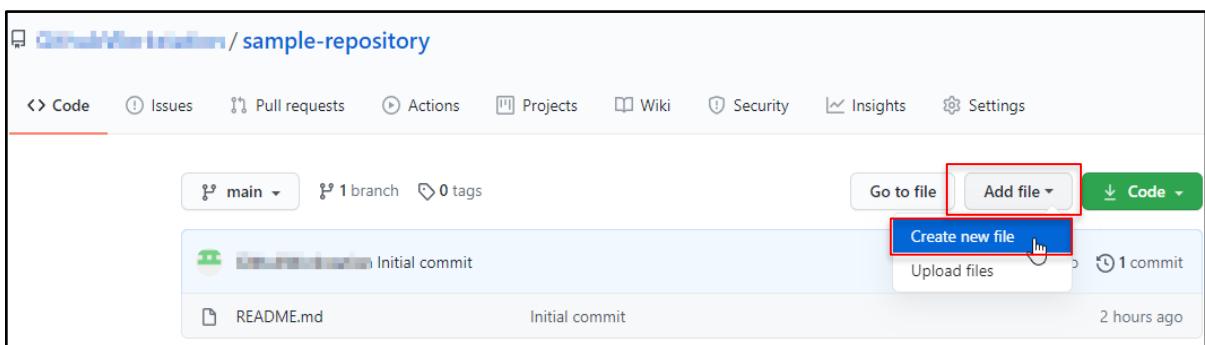
The screenshot shows the "Edit file" modal for the README.md file in the "sample-repository". The modal has tabs for "Edit file" and "Preview changes". The preview area shows the content of the file: "# sample-repository", "This is a sample repository.", and "We have edited the README file.". The last line is highlighted with a red box.

2.3 Type a commit message to describe the changes made in the file, and then click on **Commit changes**



### Step 3: Create a file in the repository

3.1 Navigate to your GitHub repository, click on **Add file**, and then select **Create new file**



3.2 Enter the filename as **SampleFile.txt** and add the following text in the **Edit new file** tab.  
This is a sample file.

The screenshot shows a GitHub repository interface. The top navigation bar includes links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. Below the navigation, the repository path is shown as sample-repository / SampleFile.txt in the main branch. A preview tab is selected, displaying the content "1 This is a sample file." which is also highlighted with a red box.

3.3 Next, scroll down to the **Commit new file** section. Write a commit message as **Create SampleFile.txt** and click on the **Commit new file**.

The screenshot shows the 'Commit new file' dialog box. It contains a text input field with the placeholder 'Create SampleFile.txt' and a larger text area for an optional extended description. Below the input fields are two radio button options: one selected for committing directly to the 'main' branch, and another for creating a new branch and starting a pull request. At the bottom are two buttons: a green 'Commit new file' button with a hand cursor icon, and a 'Cancel' button.

### 3.4 Check the newly added file with the commit message

The screenshot shows a GitHub repository page for 'sample-repository'. The 'Code' tab is selected. At the top, it says 'main' (branch), '1 branch', '0 tags', 'Go to file', 'Add file', and a green 'Code' button. Below that, a commit list shows 'Initial commit' (README.md) and 'Create SampleFile.txt' (SampleFile.txt). The 'Create SampleFile.txt' commit is highlighted with a red box. The README.md file content is displayed below, showing 'sample-repository' and its description.

```
graph TD; A[GitHub Repository / sample-repository] --> B[Code Tab]; B --> C[Initial commit: README.md]; C --> D[Create SampleFile.txt: SampleFile.txt]; D --> E[README.md Content]
```

## Step 4: Clone the GitHub repository

### 4.1 Open the **sample-repository** repo, click on the **Code**, and copy the **HTTPS** URL

The screenshot shows the same GitHub repository page for 'sample-repository'. The 'Code' tab is selected. The 'Code' button at the top right is highlighted with a red box. A context menu is open over the 'Clone' option, with the 'HTTPS' link highlighted with a red box. The URL 'https://github.com/0...n/s' is shown in the clipboard icon of the menu.

```
graph TD; A[GitHub Repository / sample-repository] --> B[Code Tab]; B --> C[Code Button]; C --> D[Clone Context Menu]; D --> E[HTTPS Link]; E --> F[Clipboard Icon]
```

4.2 Open the **Terminal** tab on your lab and use the following command to clone the repository:

```
git clone URL
```

```
manikumarsimpli@ip-172-31-71-23:~$ git clone https://github.com/GithubWorkstation/sample-repository.git
Cloning into 'sample-repository'...
remote: Enumerating objects: 15, done.
remote: Counting objects: 100% (15/15), done.
remote: Compressing objects: 100% (11/11), done.
remote: Total 15 (delta 1), reused 15 (delta 1), pack-reused 0
Receiving objects: 100% (15/15), done.
Resolving deltas: 100% (1/1), done.
manikumarsimpli@ip-172-31-71-23:~$
```

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

4.3 Use the following command to check the cloned repository:

```
ls
```

```
manikumarsimpli@ip-172-31-71-23:~$ ls
Desktop  Downloads  New_Folder  Public  Videos  nagiosxi  test.txt  xampp-cli-master
Documents  Music  Pictures  Templates  master.zip  sample-repository  thinclient_drives  xi-5.8.4.tar.gz
manikumarsimpli@ip-172-31-71-23:~$
```

4.4 Execute the below commands to navigate to the sample-repository and check the files inside the repository:

```
cd sample-repository
```

```
ls
```

```
manikumarsimpli@ip-172-31-71-23:~$ cd sample-repository
manikumarsimpli@ip-172-31-71-23:~/sample-repository$ ls
Merging  README.md  demo.txt
manikumarsimpli@ip-172-31-71-23:~/sample-repository$
```

By following these steps, you have successfully created and cloned a GitHub repository to manage, track, and collaborate on code efficiently.