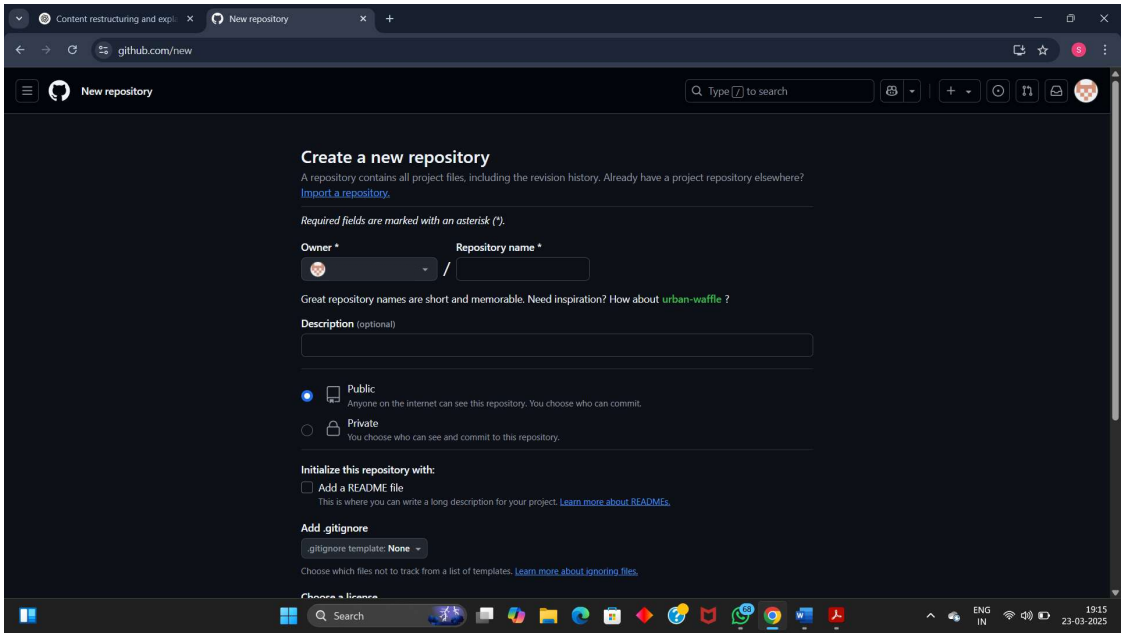
Assignment 8

Deploying a Project Between a Local Machine and GitHub

Step 1: Setting Up a GitHub Repository

1. Sign in to GitHub or create an account.
2. Click on the **GitHub logo** (top left corner).
3. Select **New Repository** under **Top Repositories**.
4. Provide a repository name (e.g., MyProject).
5. Choose visibility: **Public** (accessible by anyone) or **Private** (restricted access).
6. Click **Create Repository**.

Note: A repository stores project files along with their revision history.

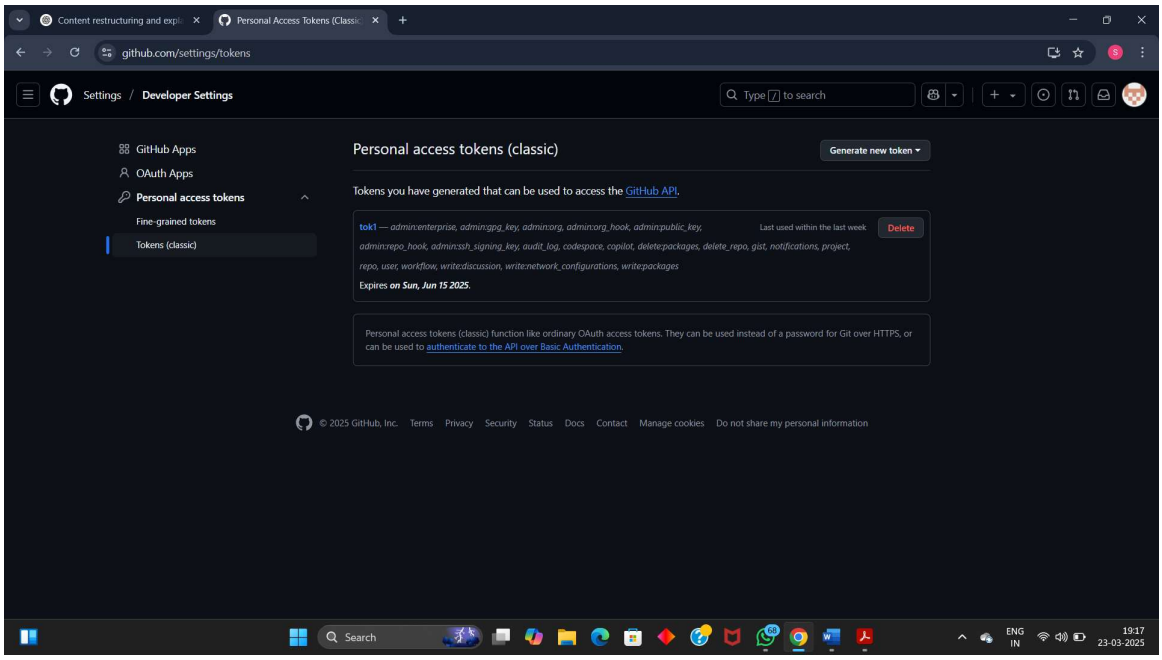


Step 2: Generating a GitHub Authentication Token

GitHub requires an authentication token for secure access without using passwords.

1. Click on your **Profile Name** → **Settings**.
2. Navigate to **Developer Settings** in the left sidebar.
3. Select **Tokens (Classic)** → **Generate New Token (Classic)**.
4. Provide a token name (e.g., MyAuthToken).
5. Set an expiration period (e.g., 90 days).
6. Select the required permissions.
7. Click **Generate Token** and **Copy** it for later use.

Note: This token acts as a replacement for passwords when using Git.



Step 3: Uploading Files to GitHub Using Git Bash

Prerequisites:

Ensure Git is installed on your machine. Download Git

Process:

1. **Navigate to Your Project Folder:**
    - Locate the folder containing your project files.
    - Right-click inside the folder and select **Git Bash Here**.
2. **Initialize Git in the Folder:**
3. git init

This command initializes a new Git repository in the folder.

4. **Configure Git with Your Details:**
5. git config --global user.email "your_email@example.com"

This links your local Git with your GitHub account.

6. **Stage Files for Commit:**
7. git add .

Adds all files to Git's tracking system.

8. **Commit the Files with a Message:**
9. git commit -m "Initial commit"

Saves the changes locally with a description.

10. **Link the Local Repository to GitHub:**

11. git remote add origin "https://github.com/yourusername/MyProject.git"

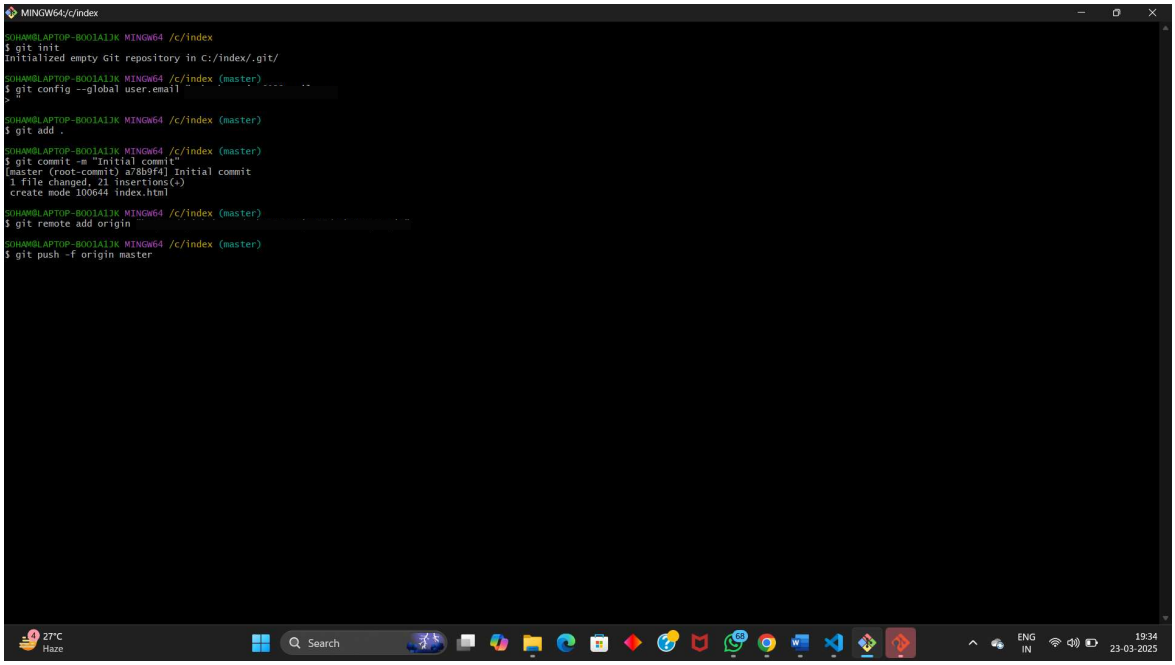
Connects the local repository to the remote GitHub repository.

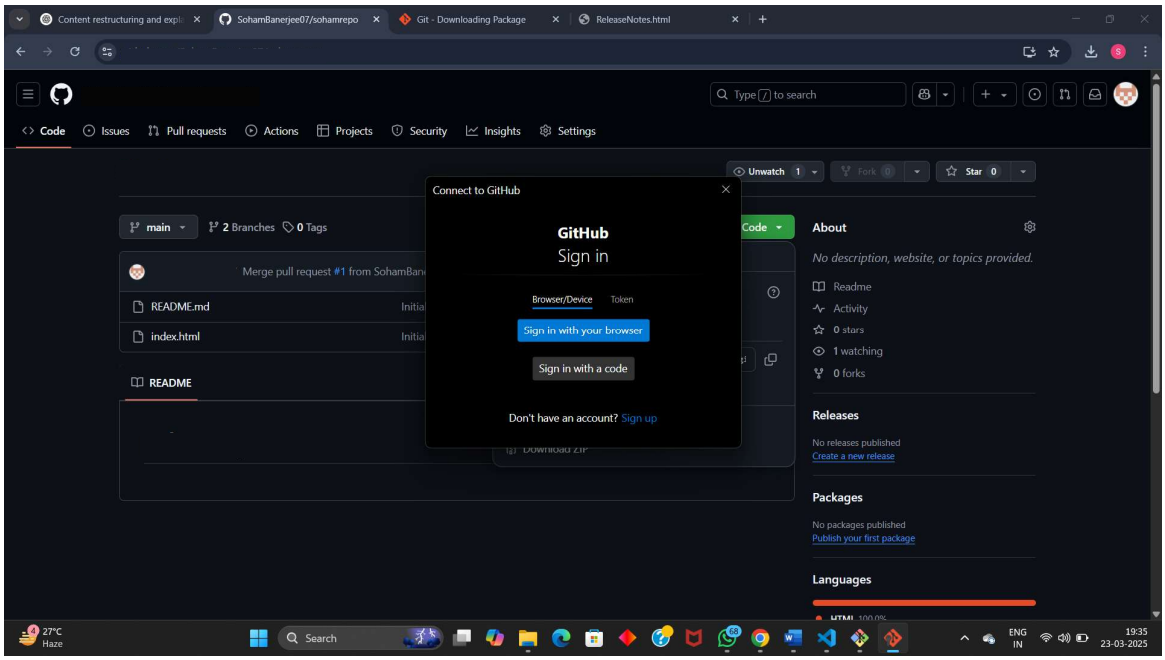
12. **Push the Files to GitHub:**

13. git push -f origin master

    - A prompt appears requesting credentials.
    - Enter the **authentication token** instead of a password.

Note: Once complete, your files will be visible in the GitHub repository.





Step 4: Cloning a GitHub Repository to a Local Machine

Scenario:

You need to download an existing repository (e.g., https://github.com/user/MyProject.git) to your local machine.

Process:

1. **Create a New Folder** (e.g., MyLocalRepo) on your desktop.
2. Right-click the folder → Select **Git Bash Here**.
3. **Clone the GitHub Repository:**
4. git clone "https://github.com/user/MyProject.git"

This command downloads the repository to your machine.

5. **Verify the Downloaded Files:**
6. ls

Lists all files in the cloned repository.

7. **Navigate Inside the Cloned Repository:**
8. cd MyProject

Moves into the cloned project folder.

9. **Check Repository Files:**
10. ls

Displays the downloaded files from GitHub.