Git Setup and Usage Guide

Lest **create a Git account** (if not exist), setting up **Git locally**, and performing your **first pull** from a repository. Let's get started.

Creating a Git Account

You'll need an account on a Git hosting platform like GitHub, GitLab, or Bitbucket. GitHub is the most popular, so we'll use that as an example.

1. Go to https://github.com
2. Click on **"Sign up"** and follow the instructions.
3. Choose a username, enter your email address, and create a strong password.
4. Verify your email address.
5. **create a GitHub token**: Go to Settings > Developer settings > Personal access tokens > Tokens (classic) > Generate new token.
6. Add a note, set expiration, select scopes (e.g., "repo"), and generate the token.
7. Copy and securely store it. Treat it like a password and revoke if compromised. Use it instead of your password for Git HTTPS authentication.
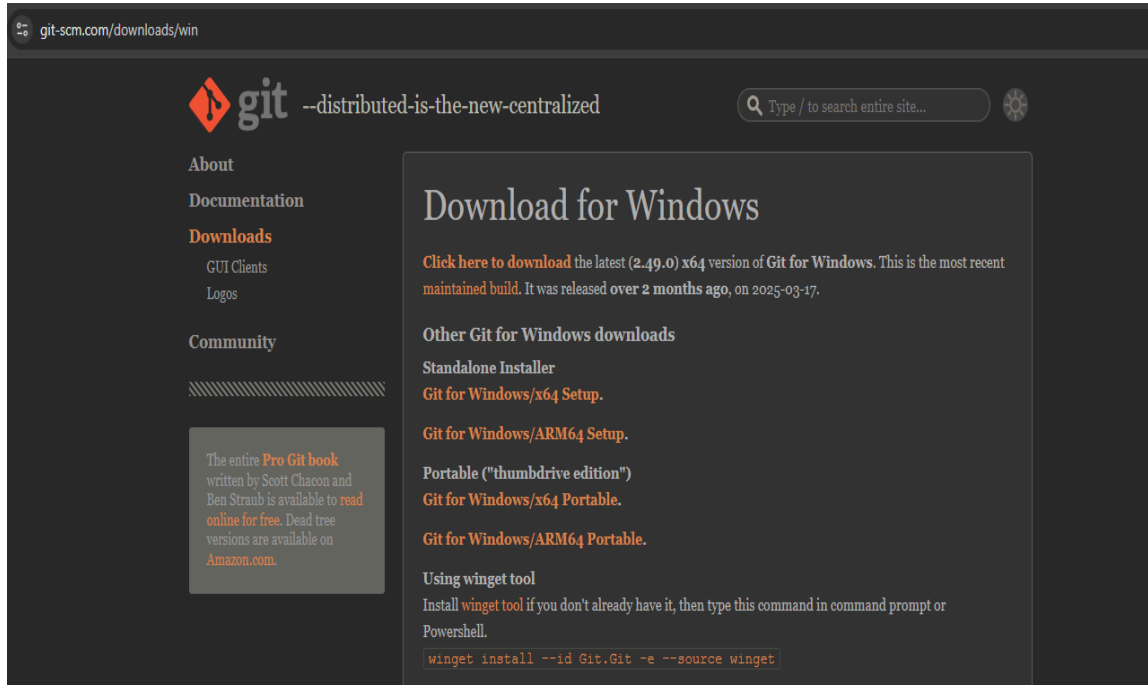
Note ⚠: A Github token is necessary for both pulling from and pushing to the repository. Creating a Github token is a required step.

Installing Git Locally

The first step is to install Git on your computer. Here's how you do it, depending on your operating system:

For Windows:

1. Go to the official Git website: https://git-scm.com/download/win

2. Download the Git for Windows installer- "Git for Windows/x64" (assuming user windows is x64 version).
   - Note ⚠: How to check your Windows version:
     * Press the "Windows key + R" to open the Run dialog.
     * Type "msinfo32" and press Enter.
     * In the "System Information" window, look for the "System Type" entry. It will say either "x64-based PC" (for 64-bit) or "x86

3. Run the installer and follow the on-screen instructions. Use the default settings unless you have specific requirements.

For Linux (Debian/Ubuntu):

1. Open your terminal.
2. Run: `sudo apt update`
3. Then run: `sudo apt install git`

Once installed, you can verify by opening a terminal or command prompt and typing:

```Unset
> git --version
```

```
PS C:\Users\santhosh> git --version
git version 2.49.0.windows.1
```

This should display the installed Git version.

Set your Git username and email in Windows

Open Command Prompt and enter the following commands.

```Unset
> git config --global user.name "Your Name"

> git config --global user.email "your.email@example.com"
```

Taking a Pull from a Courses Repository

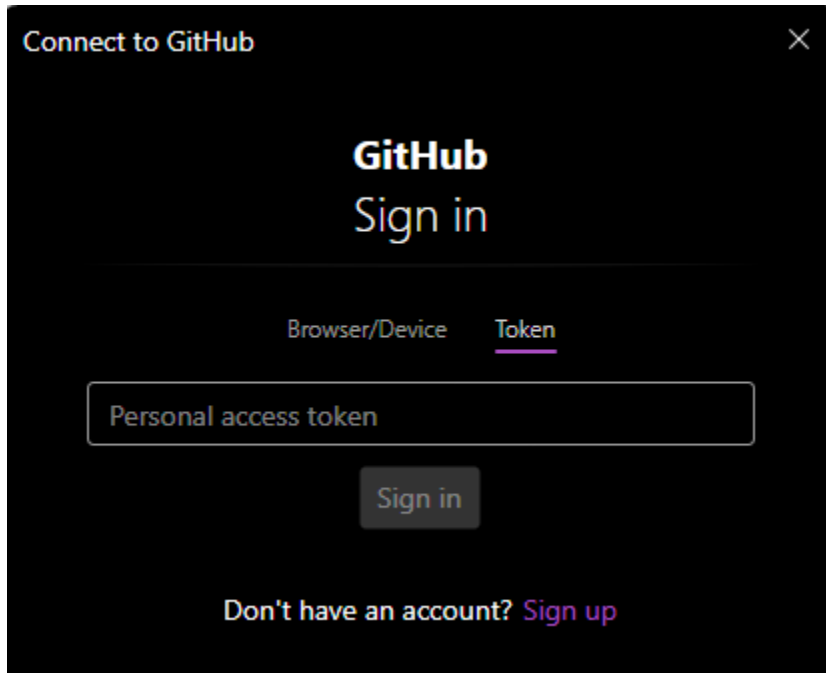To take a pull from a repository, follow these steps:

Clone the repository: Open your command prompt and navigate to the directory where you want to store the project. Then, use the `git clone` command followed by the repository URL.

```Unset
# create a folder for if not exist cloning repository
> mkdir C:\Users\santhosh\local_repo

# move to created folder
> cd C:\Users\santhosh\local_repo

# clone the repository to the created folder
```

```
> git clone https://github.com/ajithsapa/Courses.git
```

Authenticate with Token or Username/password:
Enter the token generated git account creation or sign in with browser

Navigate to the cloned directory:

```
Unset
> cd Course
```

Pull the latest changes (if needed): If you're already in a cloned repository and want to get the latest changes from the remote repository, use the `git pull` command:

```
Unset
> git pull origin main
```

This command fetches the latest changes from the `main` branch of the `origin` remote.

Further Git commands and explanations are available in the Jupyter notebook located in the Course repo, week 0-Day1 folder. Please explore these resources.