

Placement Empowerment Program

Cloud Computing and DevOps Centre

Set Up a Local Git Repository: Initialize a Git repository locally and version control your static website

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Introduction

Unlock efficient collaboration and seamless versioning with Git. By harnessing the power of version control, you'll track changes, experiment fearlessly, and share projects with ease - setting the stage for a streamlined workflow that propels your static website to new heights

Overview

Here's what we will cover in this setup:

- 1. Installing Git:** Ensure Git is installed on your system and properly configured.
- 2. Creating a Local Repository:** Initialize a Git repository in the root folder of your static website
- 3. Staging and Committing Files:** Add your project files to the staging area and commit them to the repository to save a snapshot of your work.
- 4. Reviewing the evolves. Repository State:** Use Git commands to check the status of your repository and verify that everything is tracked properly.

Objectives

By the end of this POC, you will:

- 1. Understand the Basics of Version Control:** Gain insight into the importance of Git for managing and tracking changes in your projects.

2. Set Up a Git Repository: Learn how to initialize a Git repository to version control your static website locally.

3. Track Changes Effectively: Understand how to stage and commit files to ensure every change is logged.

4. Organize Your Project: Maintain a clean and structured workflow for your static website, with the ability to roll back changes when needed.

5. Prepare for Collaboration: Lay the groundwork to share your repository and collaborate with others using Git when required

Importance of Setting Up a Local Git Repository

Track Changes: Git records all modifications, ensuring a clear history of your project.

Rollback: Easily revert to previous versions to recover from mistakes.

Collaboration: Prepares your project for team work, enabling smooth integration of changes.

Step-by-Step Overview

Step 1:

Search for "Git" in Chrome, download it, and click the "Downloads" option on the website.

git download for windows

All Images Videos Anytime

About 2,970,000 search results

git-scm.com › download

Git - Downloads

Download the latest source release of **Git for Windows**, or use **Git** via **Git** to get the development version. Find other GUI tools, logos, and older releases on the **Git** website.

GUI Clients

Git comes with built-in GUI tools for committing and...

git-scm.com › downloads › win

Git - Downloading Package

Jan 14, 2025 · **Download** the 32-bit or 64-bit version of **Git for Windows**, or use winget tool to install it. Learn how to use **Git** with the Pro **Git** book, GUI tools, or community support.

Step 2

Click the **Windows** option on the download page and follow the installation wizard.

The screenshot shows the Git website's 'Downloads' page. The header includes the Git logo and the tagline '--local-branching-on-the-cheap'. A search bar is located in the top right. The left sidebar contains navigation links: 'About', 'Documentation', 'Downloads' (highlighted), 'GUI Clients', 'Logos', and 'Community'. The main content area is titled 'Downloads' and features three platform-specific download buttons: 'macOS', 'Windows' (highlighted), and 'Linux/Unix'. To the right of these buttons is a monitor graphic displaying the 'Latest source Release 2.48.1' and a 'Download for Windows' button. Below the platform buttons, a note states: 'Older releases are available and the Git source repository is on GitHub.' Further down, there are sections for 'GUI Clients' and 'Logos', each with a brief description and a 'View' link. At the bottom, a section titled 'Git via Git' provides instructions for users who already have Git installed.

git --local-branching-on-the-cheap

Type / to search entire site...

About
Documentation
Downloads
GUI Clients
Logos
Community

The entire **Pro Git book** written by Scott Chacon and Ben Straub is available to [read online for free](#). Dead tree versions are available on [Amazon.com](#).

Downloads

macOS Windows Linux/Unix

Latest source Release
2.48.1
[Release Notes \(2025-01-13\)](#)
Download for Windows

Older releases are available and the Git source repository is on GitHub.

GUI Clients

Git comes with built-in GUI tools (**git-gui**, **gitk**), but there are several third-party tools for users looking for a platform-specific experience.
[View GUI Clients →](#)

Logos

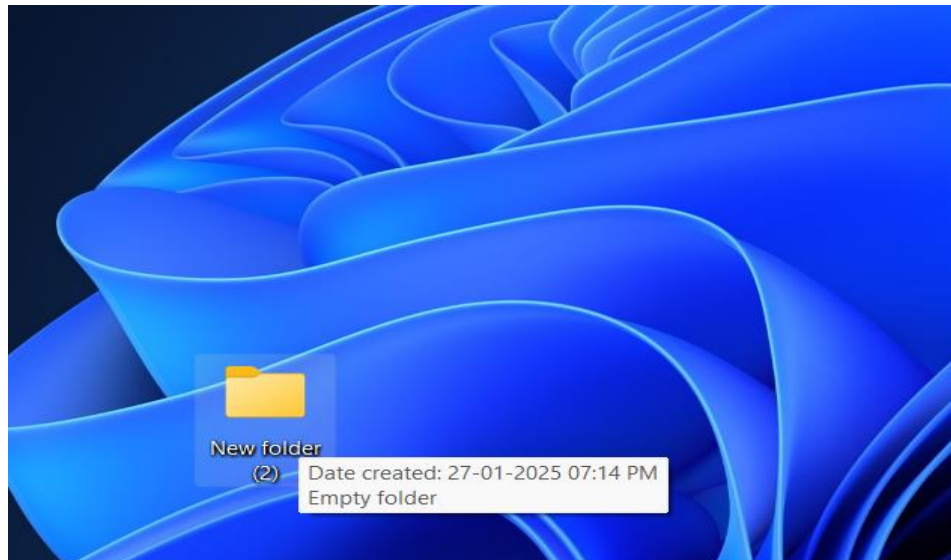
Various Git logos in PNG (bitmap) and EPS (vector) formats are available for use in online and print projects.
[View Logos →](#)

Git via Git

If you already have Git installed, you can get the latest development version via Git itself:

Step 3

In your Desktop Create a folder named website for your static website
Inside that folder, create a simple HTML file named index.html. You can write some basic HTML



STEP 4

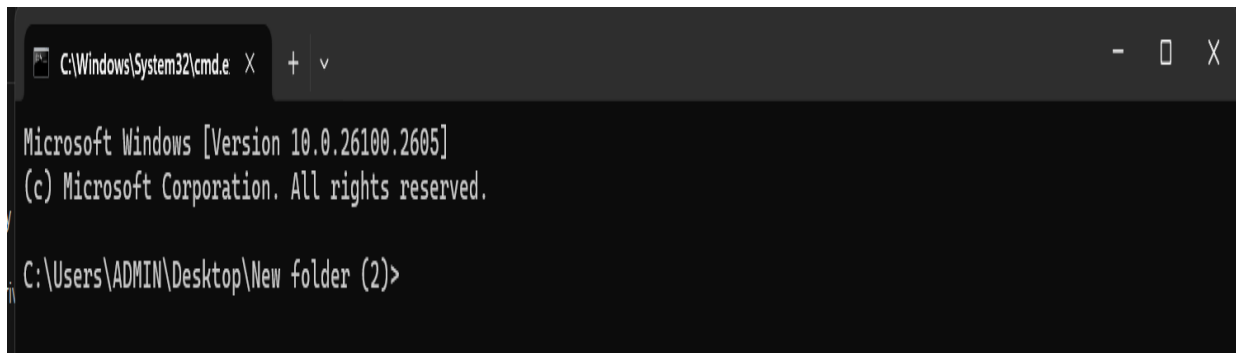
Make a HTML Code in a Notepad and Save it as .html Extension

A screenshot of a Notepad window titled "index.html". The window has a menu bar with "File", "Edit", and "View". The text area contains the following HTML code:

```
<html>
<head>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <h1>Welcome to My Static Website</h1>
  <p>This is a simple static website.</p>
</body>
</html>
```

Step 5

Open the Command prompt and set the path to the folder named website we created

A screenshot of a Windows Command Prompt window. The title bar shows 'C:\Windows\System32\cmd.e' with a close button. The window content displays the Microsoft Windows version (10.0.26100.2605) and copyright information. The current directory path is shown as 'C:\Users\ADMIN\Desktop\New folder (2)'.

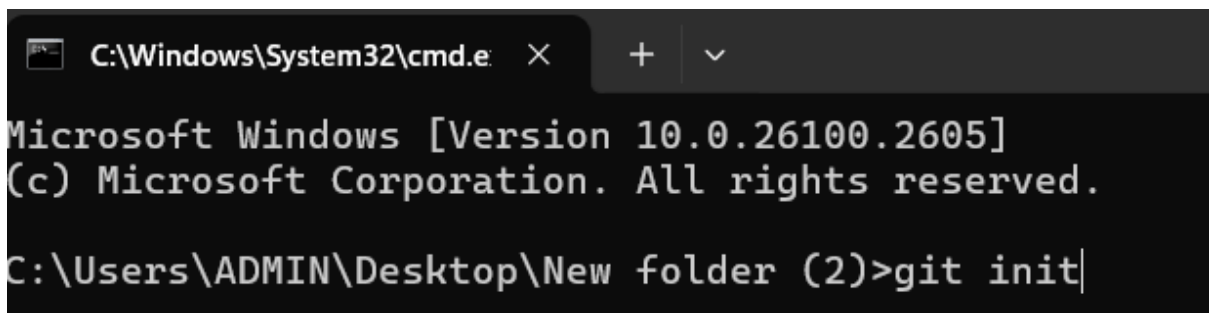
```
C:\Windows\System32\cmd.e X + v
Microsoft Windows [Version 10.0.26100.2605]
(c) Microsoft Corporation. All rights reserved.
C:\Users\ADMIN\Desktop\New folder (2)>
```

Step 6

Now, initialize Git by typing this command:

git init

This command will create a .git folder inside your project folder, which tells Git to start tracking your files.

A screenshot of a Windows Command Prompt window. The title bar shows 'C:\Windows\System32\cmd.e' with a close button. The window content displays the Microsoft Windows version (10.0.26100.2605) and copyright information. The current directory path is shown as 'C:\Users\ADMIN\Desktop\New folder (2)'. The command 'git init' is being typed at the prompt.

```
C:\Windows\System32\cmd.e X + v
Microsoft Windows [Version 10.0.26100.2605]
(c) Microsoft Corporation. All rights reserved.
C:\Users\ADMIN\Desktop\New folder (2)>git init|
```

Step 7

Next, we need to tell Git to start tracking your website files.

To tell Git which files to track, use the git add command. If you want to track all the files in your folder, type

git add .

This command adds all the files to Git's tracking system.

```
Microsoft Windows [Version 10.0.26100.2605]
(c) Microsoft Corporation. All rights reserved.

C:\Users\ADMIN\Desktop\New folder (2)>git init
Initialized empty Git repository in C:/Users/ADMIN/Desktop/New folder (2)/.git/

C:\Users\ADMIN\Desktop\New folder (2)>git add .

C:\Users\ADMIN\Desktop\New folder (2)>
```

Step 8

Now, we need to save these changes in Git. When you "commit" changes, Git takes a snapshot of your files.

Type the following command to commit your changes:

git commit -m "Initial commit of my static website"

The -m flag allows you to add a message about your changes. In this case, we're saying this is the "initial commit," meaning the first time we're saving our work.

```
C:\Windows\System32\cmd.e  x  +  v

Microsoft Windows [Version 10.0.26100.2605]
(c) Microsoft Corporation. All rights reserved.

C:\Users\ADMIN\Desktop\New folder (2)>git init
Initialized empty Git repository in C:/Users/ADMIN/Desktop/New folder (2)/.git/

C:\Users\ADMIN\Desktop\New folder (2)>git add .

C:\Users\ADMIN\Desktop\New folder (2)>git commit -m "adding new file"
[master (root-commit) 7b60a37] adding new file
 1 file changed, 15 insertions(+)
 create mode 100644 index1.html

C:\Users\ADMIN\Desktop\New folder (2)>
```

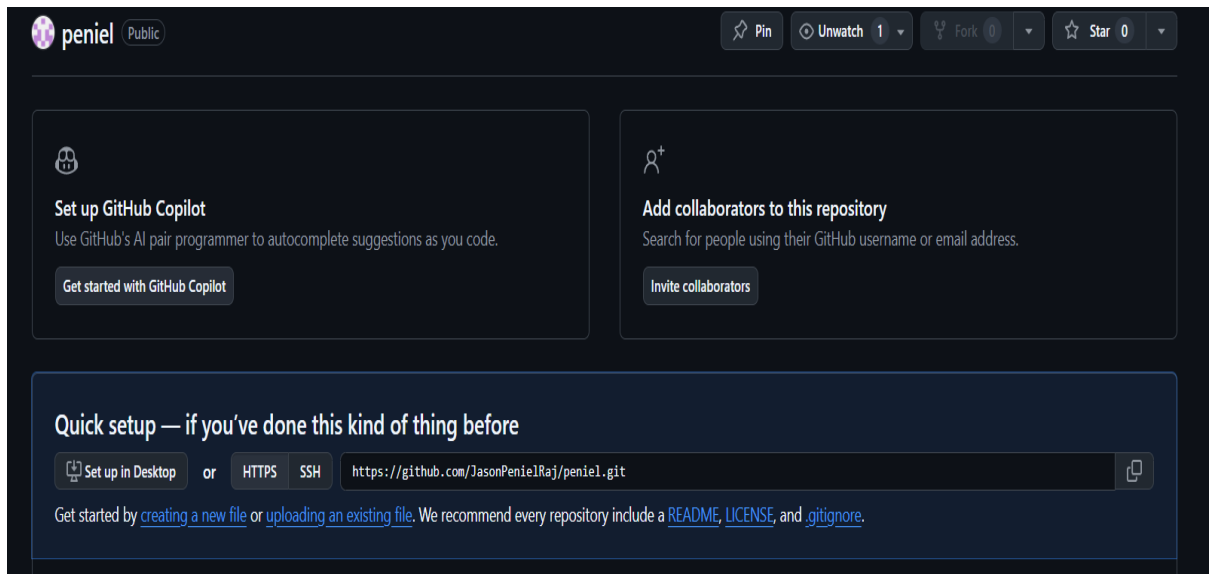
Step 9

Create a New Repository:

Once you're logged in, click the green **"New"** button on the top-right of your GitHub homepage to create a new repository.

Give your repository a name, for example, my-website.

Leave the other settings as default, and click **"Create repository"**.



Step 11

Add the Remote Repository URL to Your Local Repository:

Go back to your Command Line and type the following:

```
git remote add origin https://github.com/yourusername/my-website.git
```

Replace yourusername with your GitHub username and my-website with the name of your GitHub repository.

```
C:\Users\Staff\Desktop\Task>git remote add origin https://github.com/vasanth-z/example.git
error: remote origin already exists.
```


Step 12

The **git branch -M** main command is used to **rename the current branch** to main. Here's what it does:

-M: This flag forces the renaming, even if a branch named main already exists. It will overwrite the existing main branch.

main: This is the new name for the current branch.

```
C:\Users\Hi\Desktop\website>git branch -M main
```

Step 13

The command **git push -u origin main** is used to push your local **main** branch to the remote repository (**origin**) and set it as the upstream branch

```
C:\Users\Hi\Desktop\website>git push -u origin main
info: please complete authentication in your browser...
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 16 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 359 bytes | 359.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/SaravanaKrishnan16/website.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
```

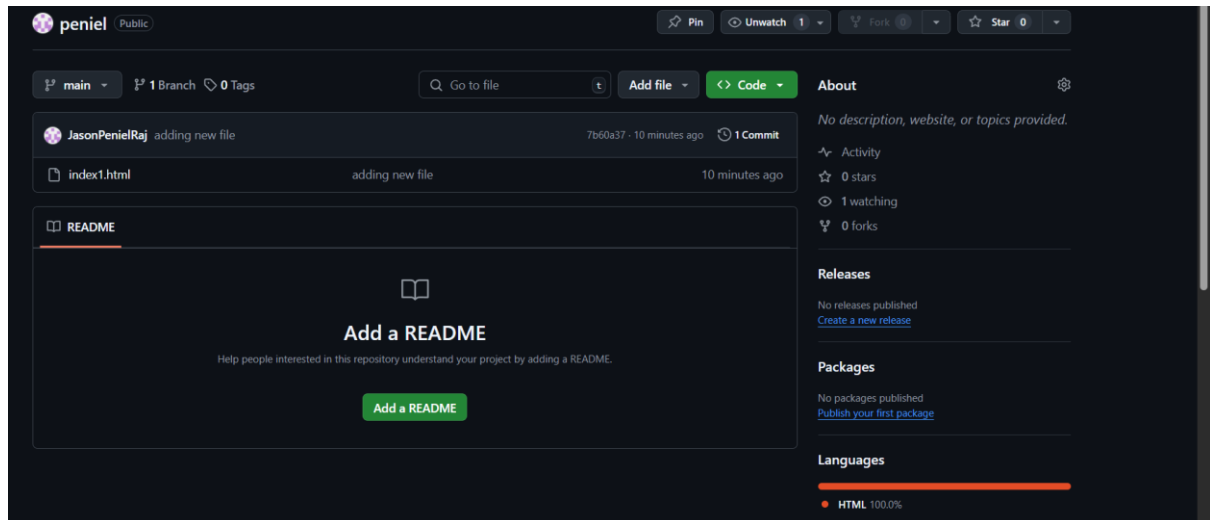
Step 14

Verify Your Files on GitHub

Go to your GitHub Repository:

Open your web browser and navigate to your GitHub repository (e.g., <https://github.com/yourusername/my-website>).

You should see your website files there!



Expected Outcome

By completing this PoC of setting up a local Git repository, you will:

1. Successfully initialize a Git repository in your local static website folder.
2. Track changes made to your website files (HTML, CSS, etc.) using Git version control.
3. Understand the basic Git commands (`git init`, `git add`, `git commit`) for version control.
4. Commit your changes locally with a descriptive commit message.
5. Gain hands-on experience with Git and how it helps manage and track website file changes.