



Information Guide

Go Git It

What it is and why it's important



Content

Let's look into the topics that we'll be covering

Introduction to Git and GitHub

Let's know about Open Sourcing

A quick tour about Git

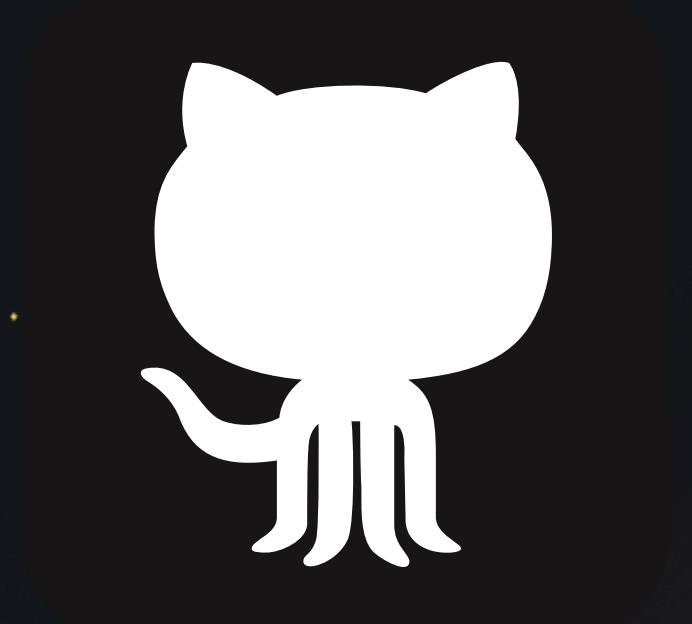
First Contribution

About Hacktober

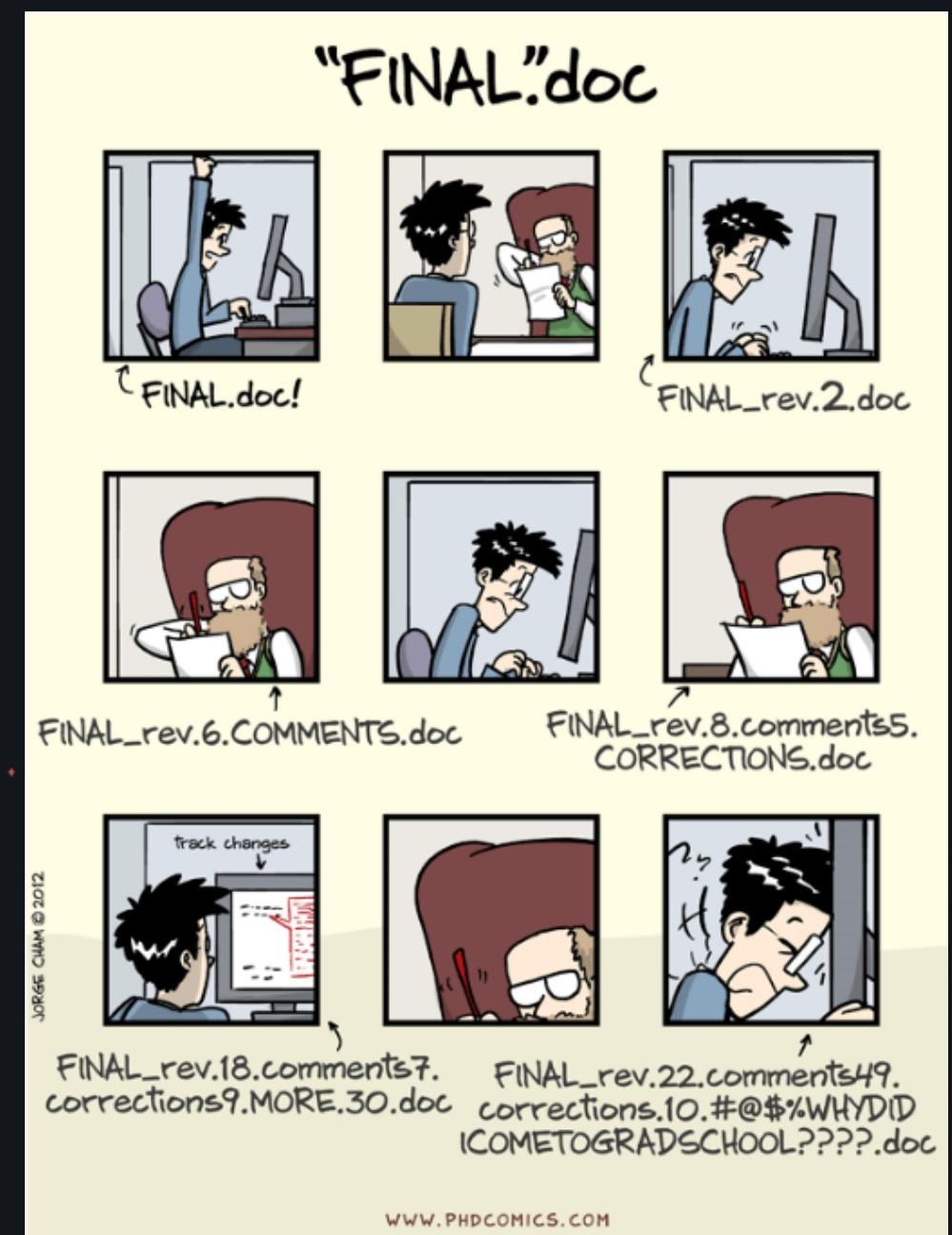
Industrial Significance of GitHub.

Introduction

Git and Github



Has this happened with you ?

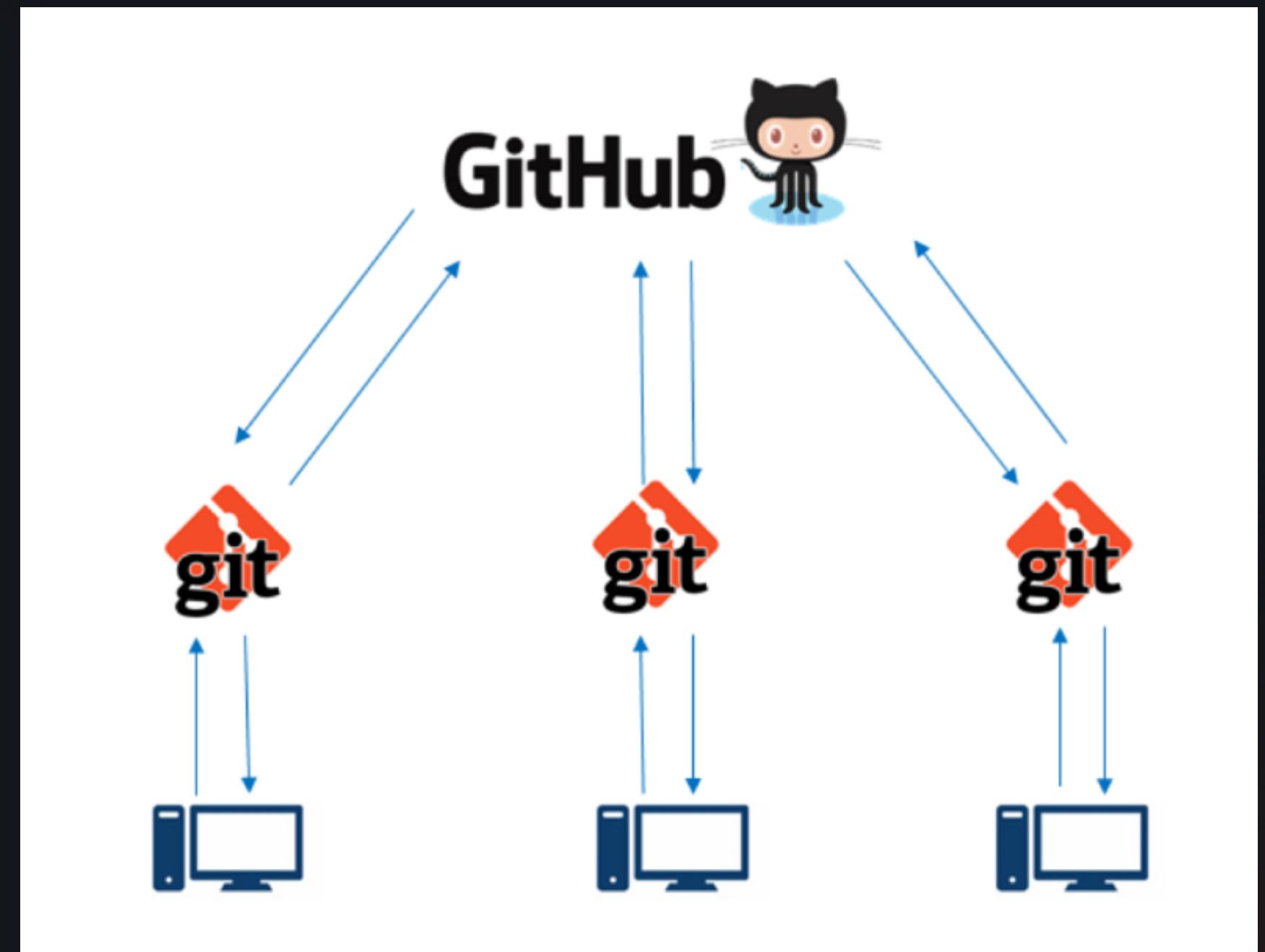




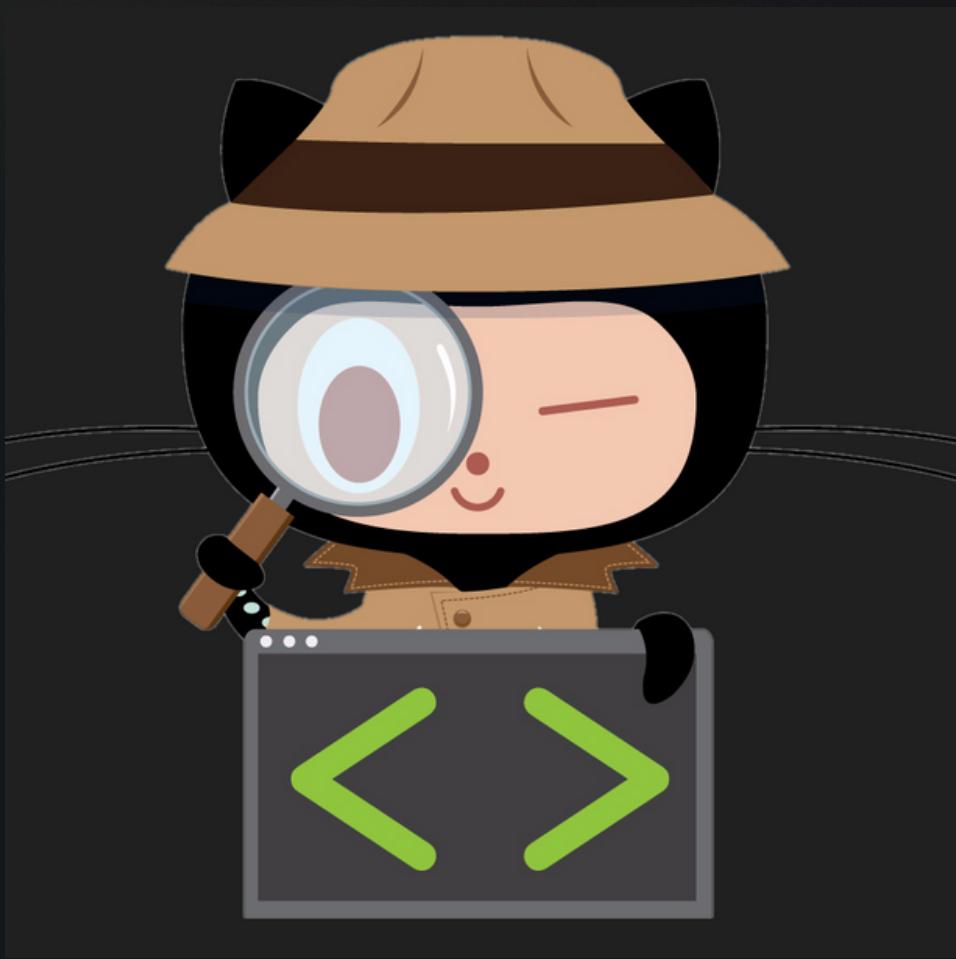
Git and GitHub to save the Day

- GitHub is a code hosting platform for version control and collaboration. It lets you and others work together on projects from anywhere. We use GitHub as the hosted services it provides is free for open source projects and it has fundamentally improved open source collaboration.
- Git is a free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency. As the it stands for "global information tracker".

Representation of how things work



Difference Between Git and GitHub





Git

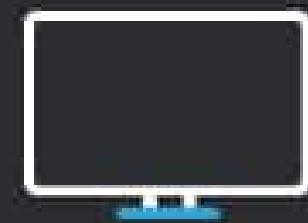


Git is installed and maintained on your local system (rather than in the cloud)



Git is a high quality version control system

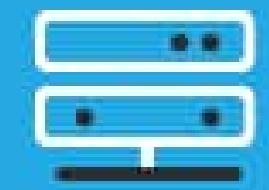
First developed in 2005



One thing that really sets Git apart is its branching model



GitHub



GitHub is designed as a Git repository hosting service

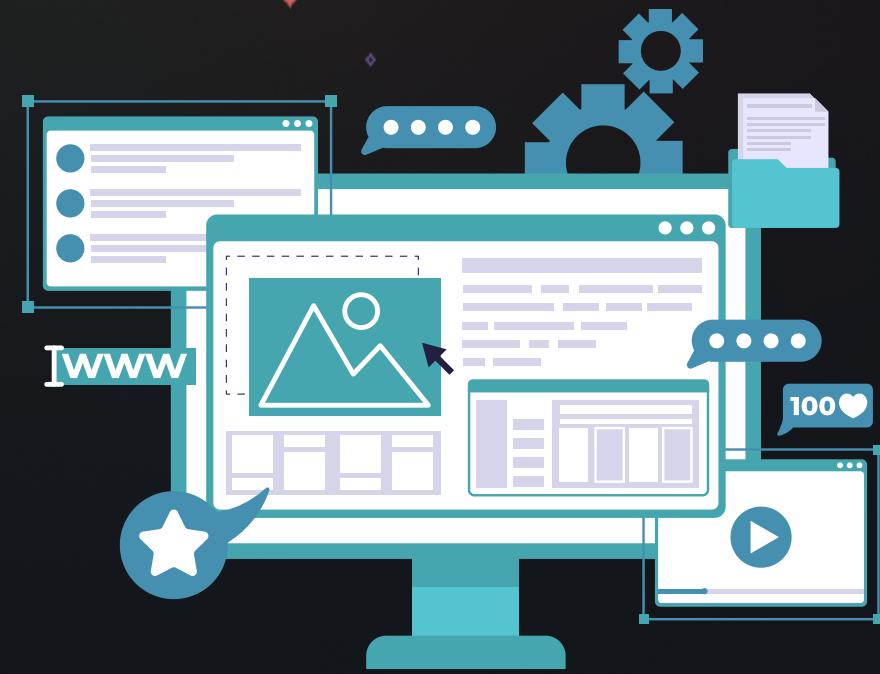


You can share your code with others, giving them the power to make revisions or edits

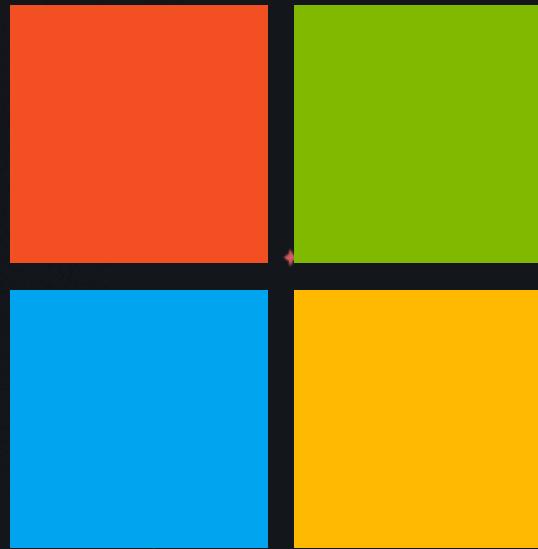
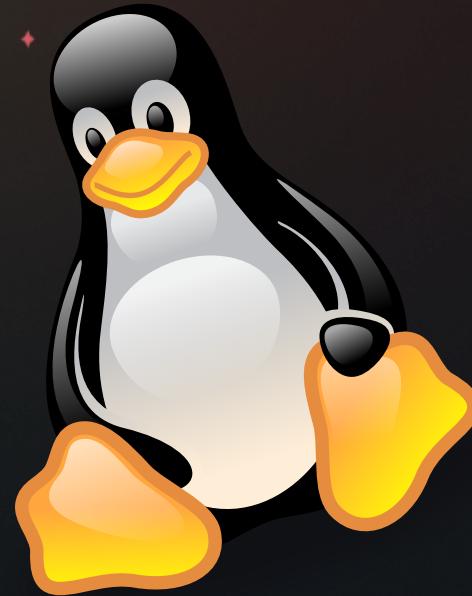


GitHub is a cloud-based hosting service

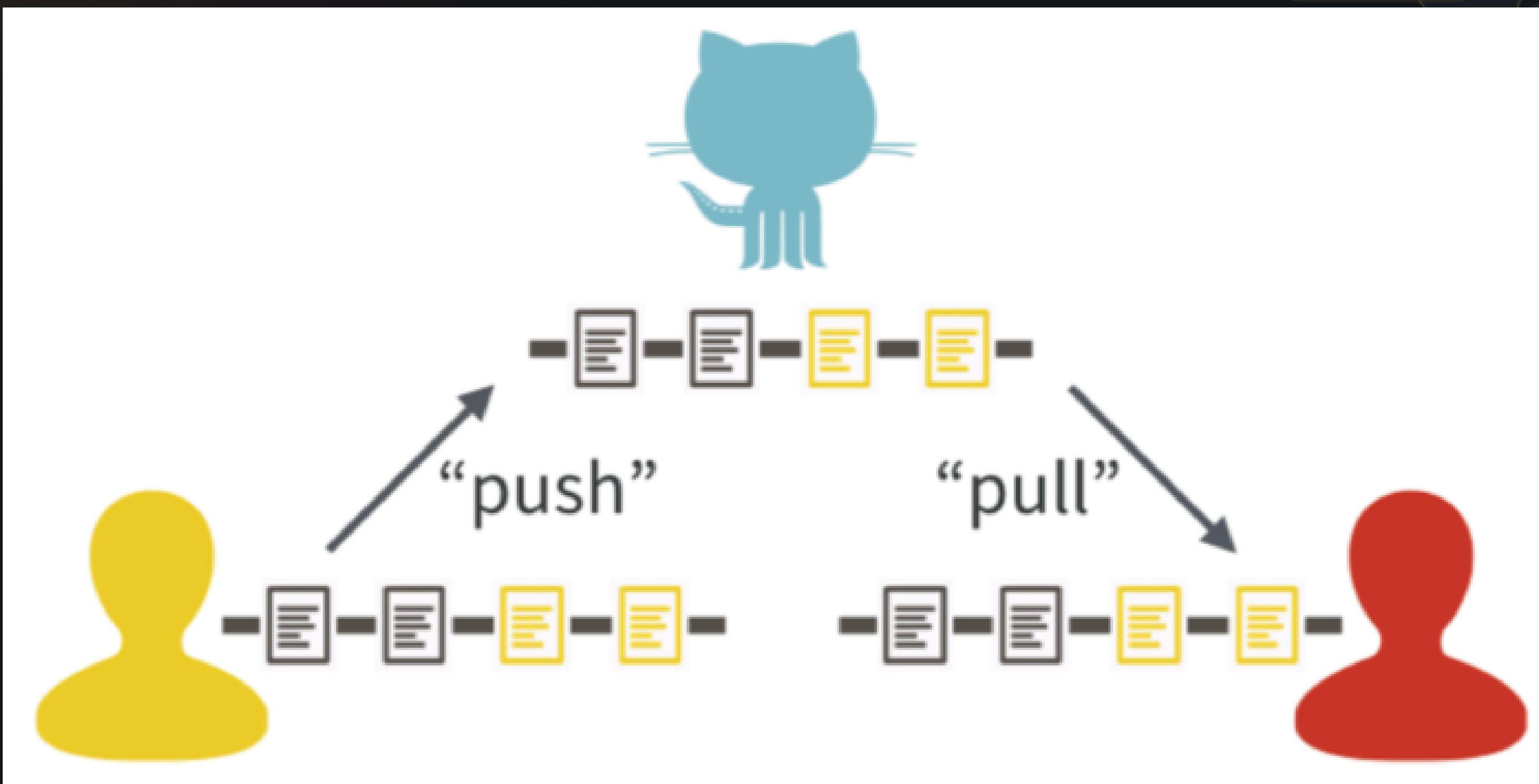




Let's Know About Open Sourcing



Open source refers to any program whose source code is made available for use or modification as users or other developers see fit. What makes it different from proprietary software, is , that open source software is computer software is developed as a public, open collaboration and made freely available to the public.





Quick Tour of Git



Git

https://git-scm.com

Import bookmarks... Library of Babel Competitive Program... CSES Problem Set - Ta... CSS-Tricks twitter.com/ Programming Fundam... (2) YouTube Handling Events – React cse.wustl.edu/~sg/CS2... WhatsApp

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

Search entire site...

Git is a **free and open source** distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

Git is **easy to learn** and has a **tiny footprint with lightning fast performance**. It outclasses SCM tools like Subversion, CVS, Perforce, and ClearCase with features like **cheap local branching**, convenient **staging areas**, and **multiple workflows**.



About
The advantages of Git compared to other source control systems.

Downloads
GUI clients and binary releases for all major platforms.

Documentation
Command reference pages, Pro Git book content, videos and other material.

Community
Get involved! Bug reporting, mailing list, chat, development and more.

Latest source Release
2.38.1
[Release Notes \(2022-10-07\)](#)

[Download for Windows](#)

<https://git-scm.com/downloads>

Pro Git by Scott Chacon and Ben Straub is available to [read online for free](#). Dead

Windows GUIs Tarballs

Downloads



macOS



Windows



Linux/Unix

Older releases are available and the [Git source repository](#) is on GitHub.

Latest source Release

2.38.1

[Release Notes \(2022-10-07\)](#)

[Download for Windows](#)

Download for Windows

[Click here to download](#) the latest **(2.38.1)** 64-bit version of **Git for Windows**. This is the most recent maintained build. It was released [about 5 hours ago](#), on 2022-10-18.

Other Git for Windows downloads

Standalone Installer

[32-bit Git for Windows Setup.](#)

[64-bit Git for Windows Setup.](#)

Portable ("thumbdrive edition")

[32-bit Git for Windows Portable.](#)

[64-bit Git for Windows Portable.](#)

Using winget tool

Install [winget tool](#) if you don't already have it, then type this command in command prompt or Powershell.

```
winget install --id Git.Git -e --source winget
```

The current source code release is version **2.38.1**. If you want the newer version, you can build it from [the source code](#).

Download for Linux and Unix

It is easiest to install Git on Linux using the preferred package manager of your Linux distribution. If you prefer to build from source, you can find tarballs [on kernel.org](#). The latest version is [2.38.1](#).

Debian/Ubuntu

For the latest stable version for your release of Debian/Ubuntu

```
# apt-get install git
```

For Ubuntu, this PPA provides the latest stable upstream Git version

```
# add-apt-repository ppa:git-core/ppa # apt update; apt install git
```

Fedora

```
# yum install git
```

 (up to Fedora 21)

```
# dnf install git
```

 (Fedora 22 and later)

Gentoo

```
# emerge --ask --verbose dev-vcs/git
```

Arch Linux

```
# pacman -S git
```

openSUSE

```
# zypper install git
```

Mageia

```
# urpmi git
```

Download for macOS

There are several options for installing Git on macOS. Note that any non-source distributions are provided by third parties, and may not be up to date with the latest source release.

Homebrew

Install [homebrew](#) if you don't already have it, then:

```
$ brew install git
```

MacPorts

Install [MacPorts](#) if you don't already have it, then:

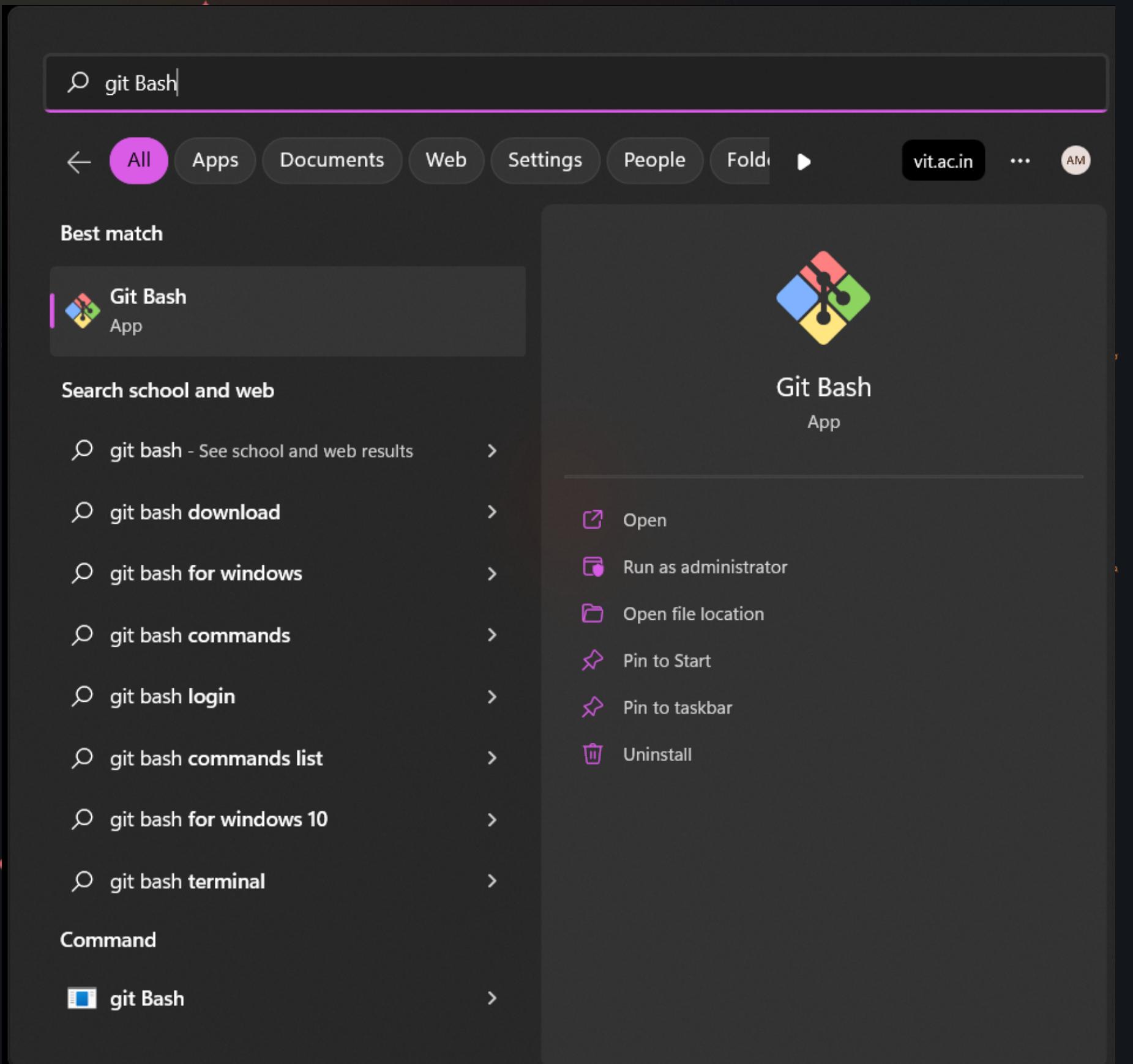
```
$ sudo port install git
```

Xcode

Apple ships a binary package of Git with [Xcode](#).

Binary installer

Tim Harper provides an [installer](#) for Git. The latest version is [2.33.0](#), which was released about 1 year ago, on 2021-08-30.



A screenshot of a terminal window titled "MINGW64:/c/Users/aayum". The window shows the command prompt "aayum@LAPTOP-69ML6EKG MINGW64 ~" followed by a dollar sign (\$) indicating where input can be entered.

 Command Prompt

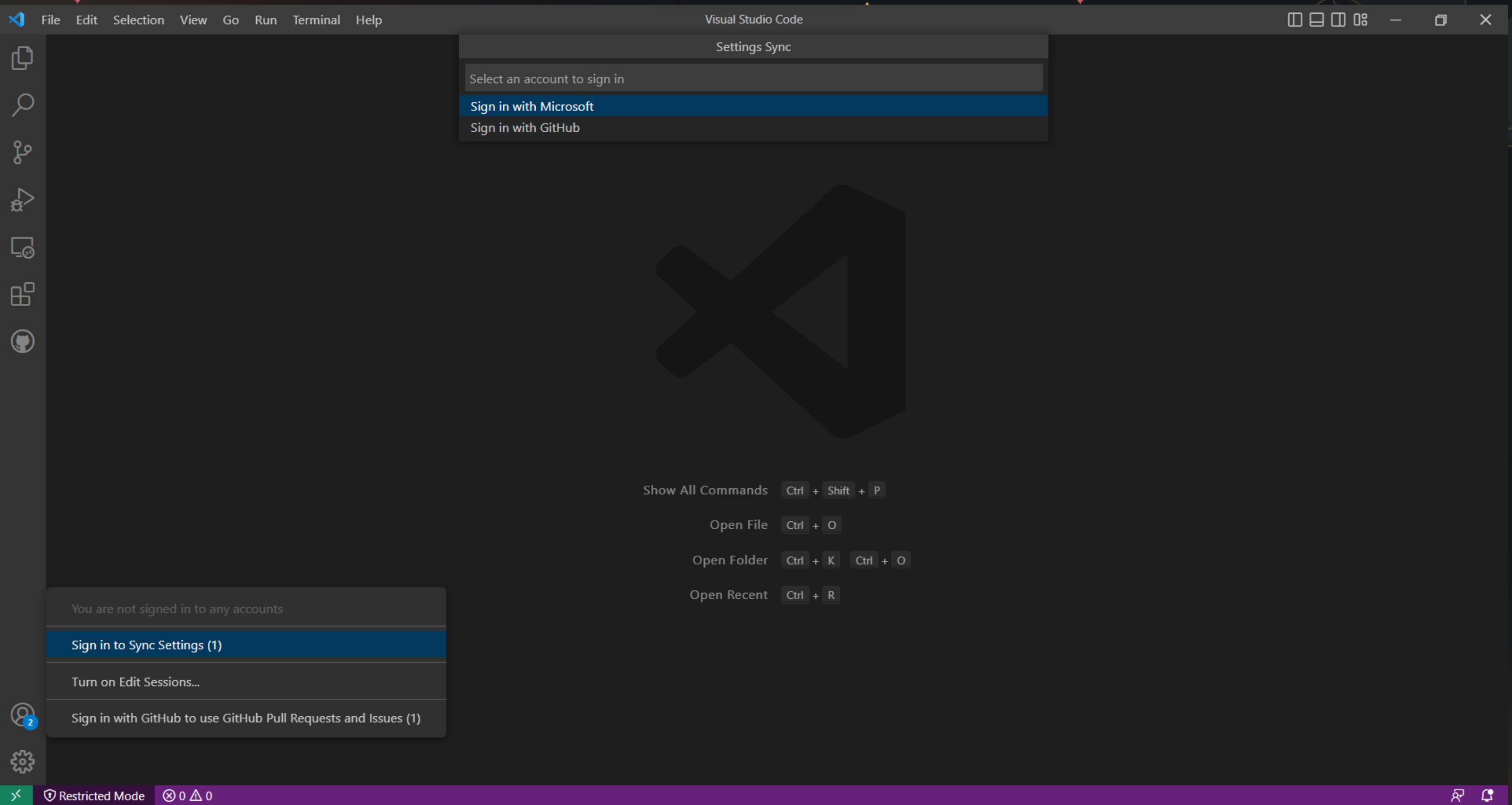
```
C:\Users\aa yum>git --version  
git version 2.33.1.windows.1
```

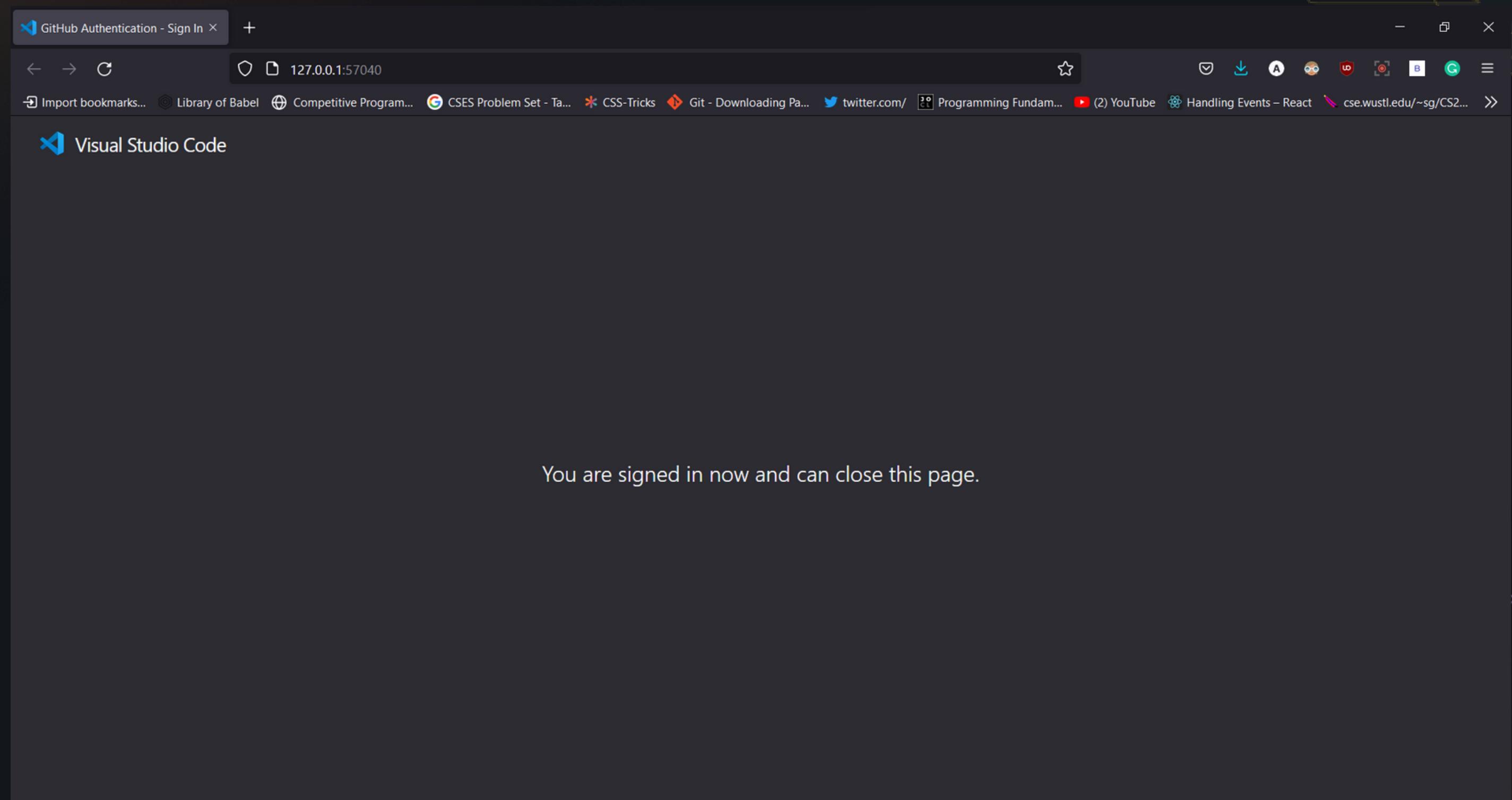
```
C:\Users\aa yum>
```

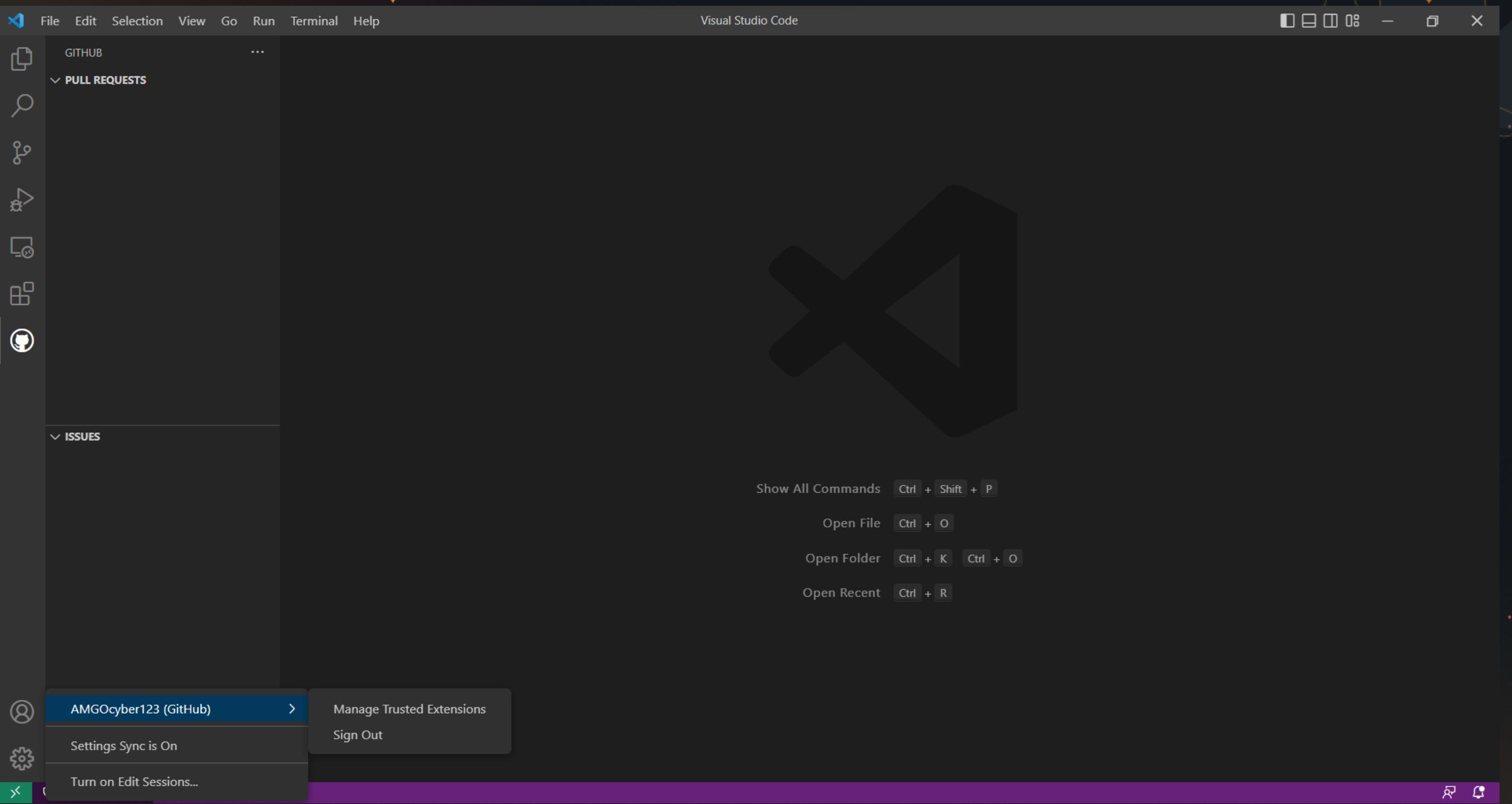
MINGW64:/c/Users/aayum

aayum@LAPTOP-69ML6EKG MINGW64 ~
\$ git config --global user.name "<YOUR USER NAME>"

aayum@LAPTOP-69ML6EKG MINGW64 ~
\$ git config --global user.email "<YOUR EMAIL ID>"|



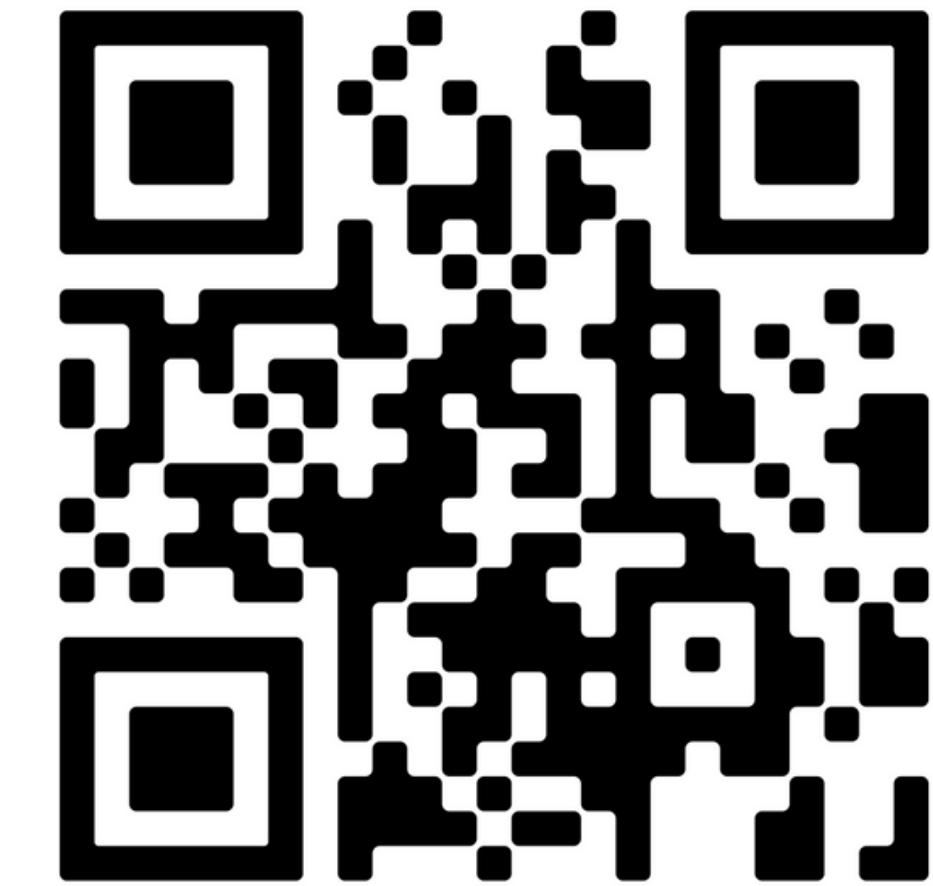




Time For Your First Contribution



Scan For Attendance



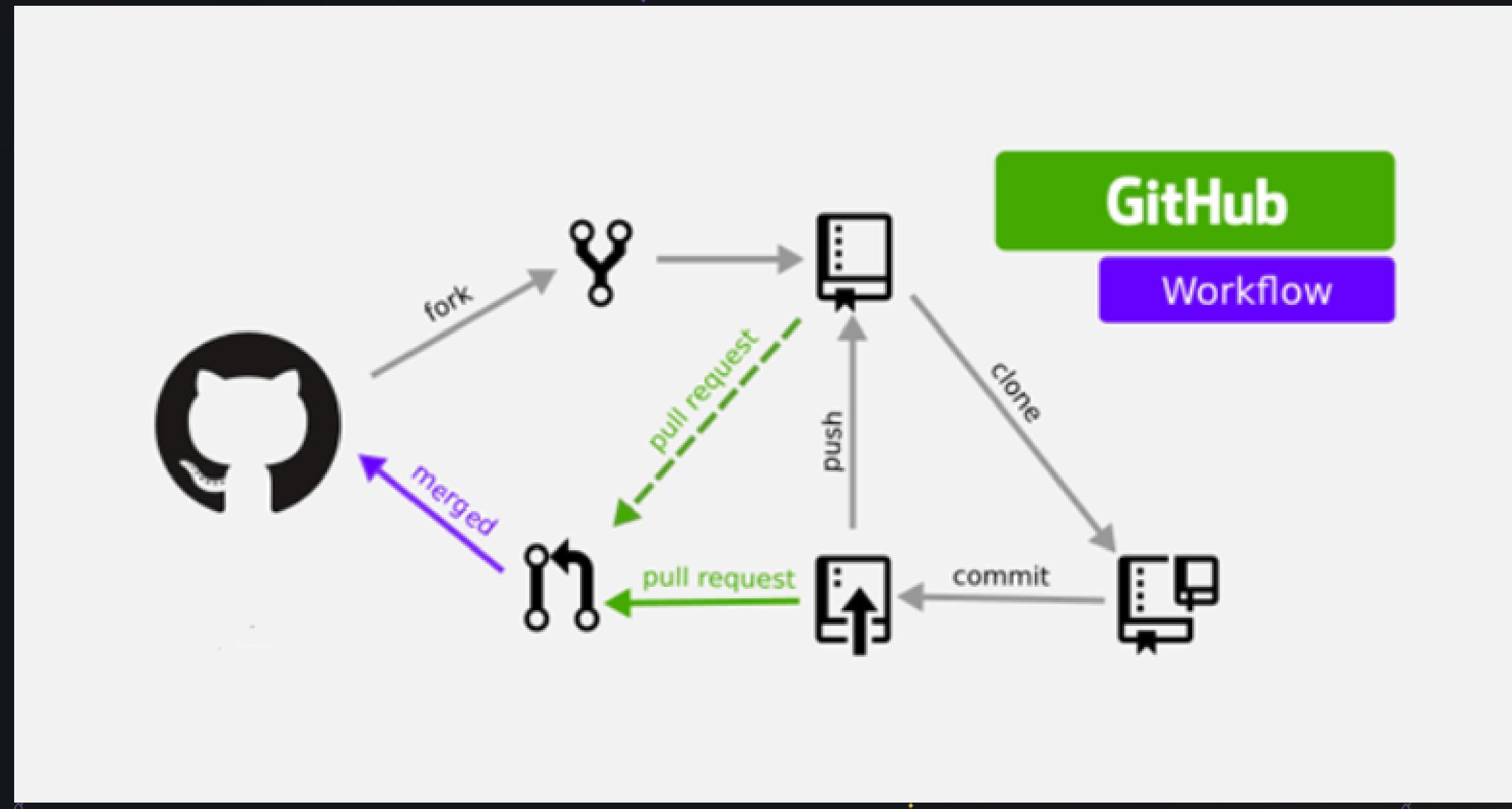


Let's go through some basic commands to get started

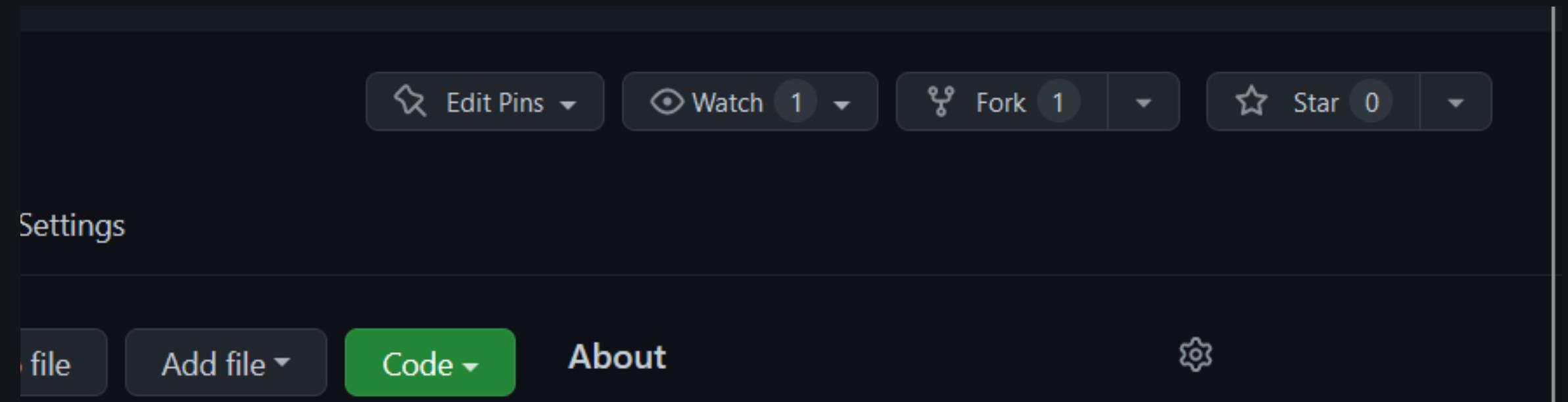
<https://education.github.com/git-cheat-sheet-education.pdf>

<https://www.atlassian.com/git/tutorials>

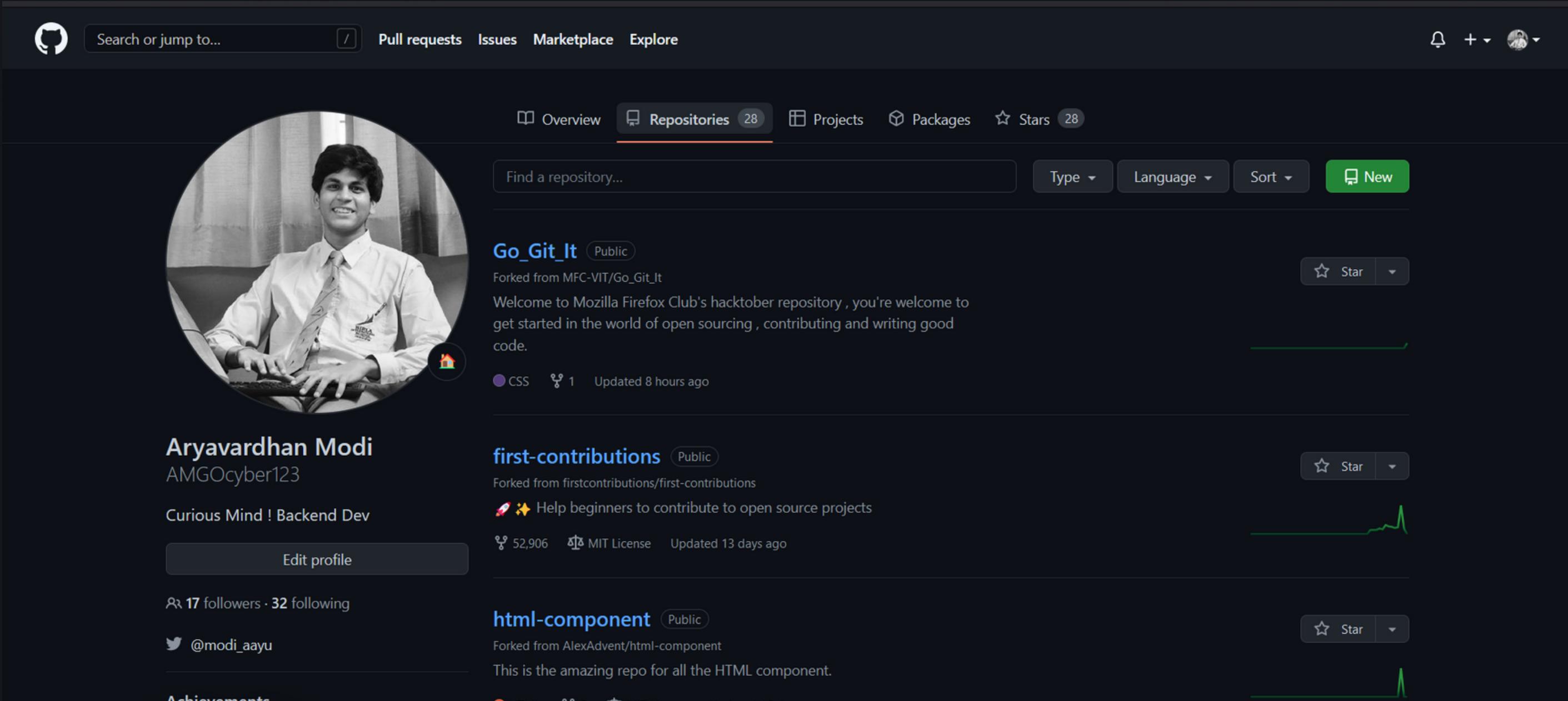
General Work Flow



Step 0: Fork it !



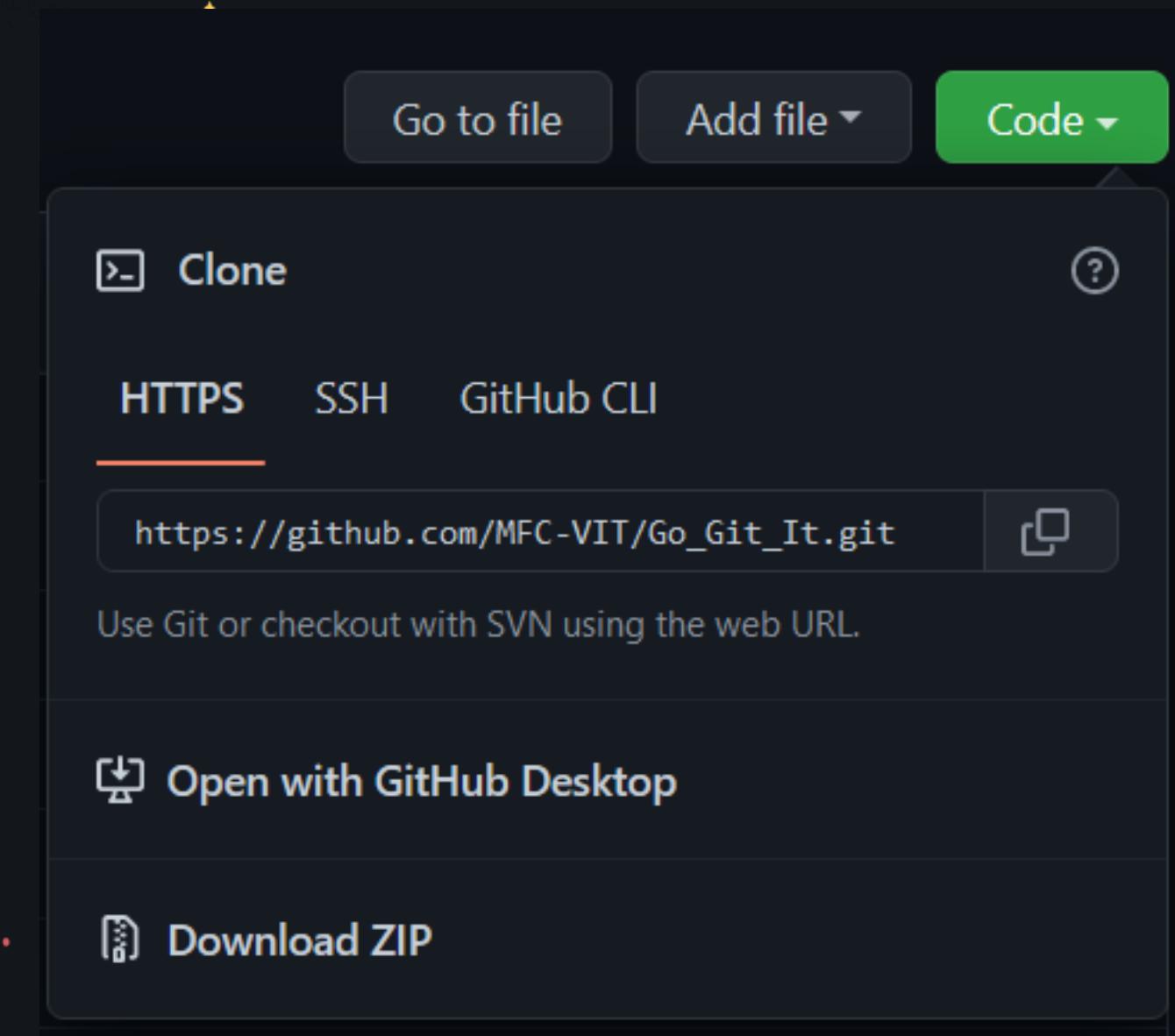
You can see a copy gets created



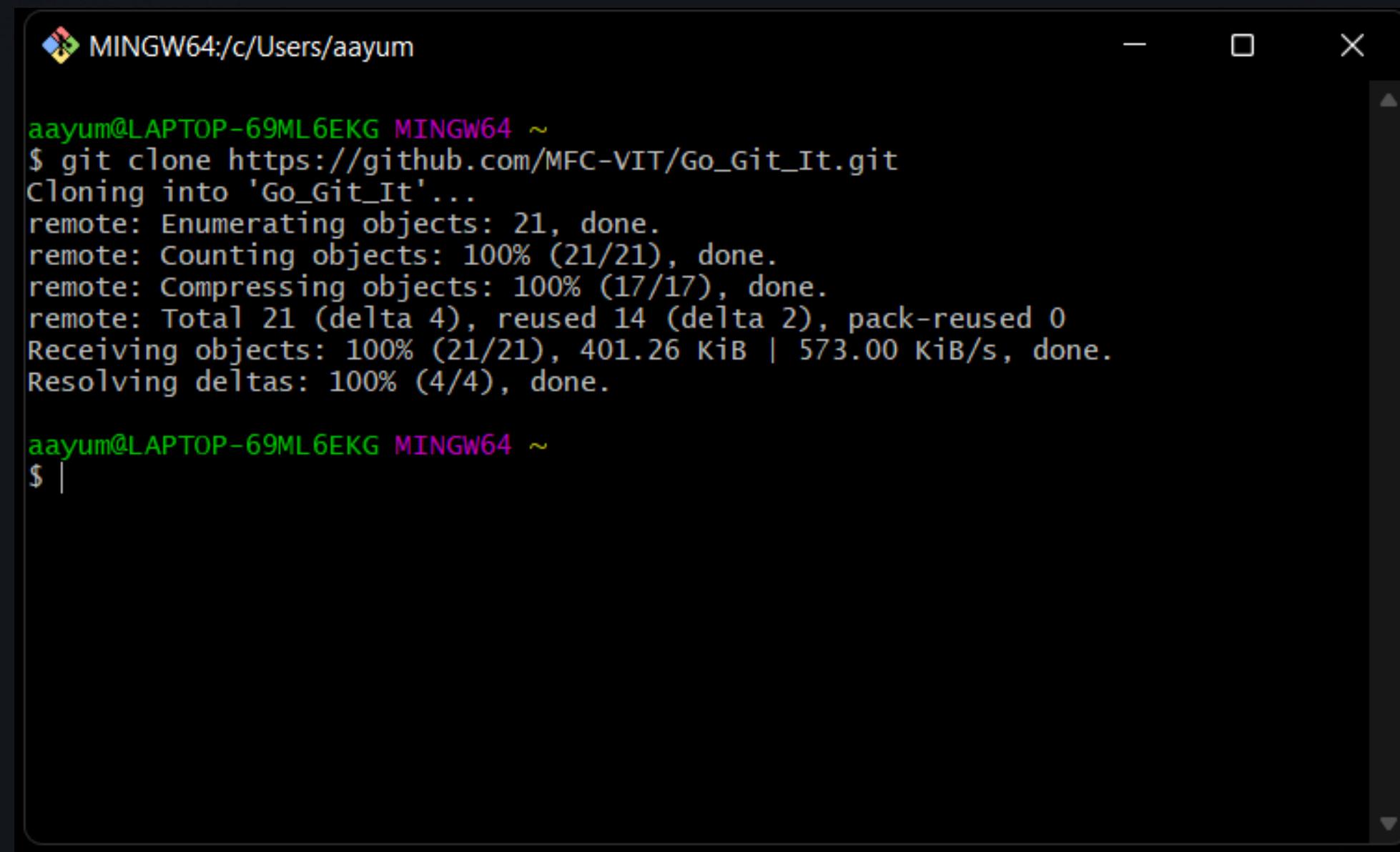
A screenshot of a GitHub user profile for **Aryavardhan Modi** (AMGOCyber123). The profile picture shows a young man sitting at a desk with a laptop. The user is described as a "Curious Mind ! Backend Dev". Key statistics include 17 followers and 32 following. The GitHub interface shows the user's repositories:

- Go_Git_It** (Public) - Forked from MFC-VIT/Go_Git_It. Description: Welcome to Mozilla Firefox Club's hacktober repository , you're welcome to get started in the world of open sourcing , contributing and writing good code. Languages: CSS. Last updated 8 hours ago.
- first-contributions** (Public) - Forked from firstcontributions/first-contributions. Description: Help beginners to contribute to open source projects. Languages: JavaScript, HTML, CSS. Last updated 13 days ago.
- html-component** (Public) - Forked from AlexAdvent/html-component. Description: This is the amazing repo for all the HTML component. Languages: HTML, CSS, JS. Last updated 16 days ago.

Step 1: Clone the repository !



\$ git clone REPO_URL



```
MINGW64:/c/Users/aayum
aayum@LAPTOP-69ML6EKG MINGW64 ~
$ git clone https://github.com/MFC-VIT/Go_Git_It.git
Cloning into 'Go_Git_It'...
remote: Enumerating objects: 21, done.
remote: Counting objects: 100% (21/21), done.
remote: Compressing objects: 100% (17/17), done.
remote: Total 21 (delta 4), reused 14 (delta 2), pack-reused 0
Receiving objects: 100% (21/21), 401.26 KiB | 573.00 KiB/s, done.
Resolving deltas: 100% (4/4), done.

aayum@LAPTOP-69ML6EKG MINGW64 ~
$ |
```

Step 2: Start adding your names !



A screenshot of the Visual Studio Code interface showing the file `index.html` open. The code contains HTML and CSS for a web page. A specific line of code is highlighted:

```
29     <h2>1.Sagar Bhat</h2>
```

The VS Code interface includes a sidebar with icons for file operations, a search bar, and sections for `OUTLINE` and `TIMELINE`. The bottom status bar shows file statistics like `Ln 1, Col 1`, `Spaces: 4`, and `UTF-8 CRLF HTML`.

\$ git status

The image shows a dark-themed code editor interface. At the top, there are two tabs: 'README.md' and 'index.html'. The 'index.html' tab is active, displaying the following HTML code:

```
<!-- Hacktoberfest Logos -->
<div>
    </div>
</nav>

<main>
    <div class="githubCat">
        
        <h1>G<span></span> Git It !</h1>
    </div>
    <!-- START WITH YOUR CONTRIBUTIONS -->
    <h1 class="contribute">Make your Contributions here !</h1>
    <div class="contributions">
        <!-- APPEND YOUR NAME TO THE LIST -->
        <!-- HERE -->
        <h2>1. Sagar Bhat</h2>
        <h2>2. Aryavardhan Modi</h2>
    </div>
</main>

</body>
</html>
```

Below the code editor is a terminal window with the following content:

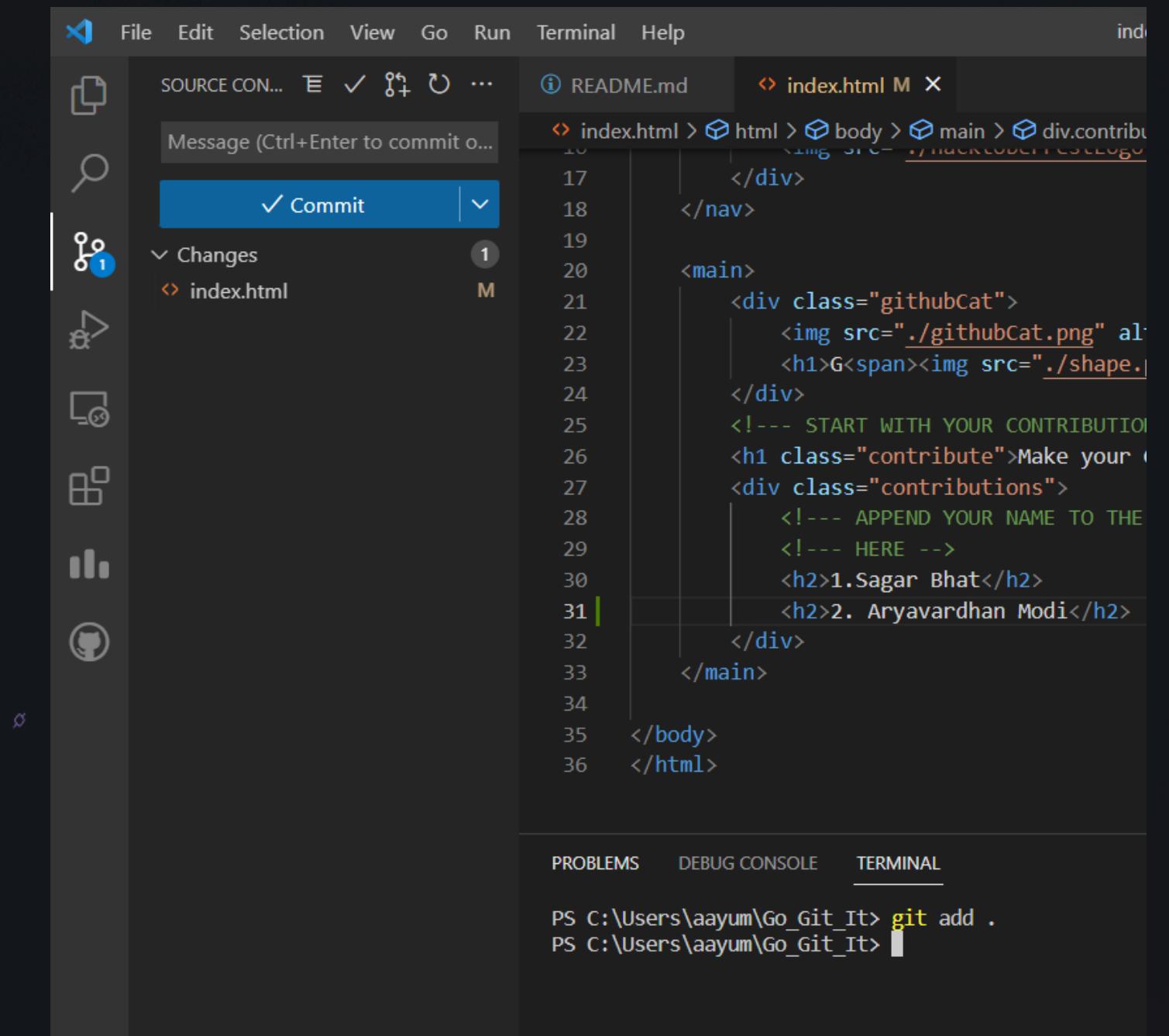
```
PS C:\Users\aaayum\Go_Git_It> git status
On branch main
Your branch is up to date with 'origin/main'.

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
    modified:   index.html

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\aaayum\Go_Git_It>
```

The bottom status bar indicates: Ln 31, Col 41 Spaces: 4 UTF-8 CRLF HTML

\$ git add .



```
index.html
17 </div>
18 </nav>
19
20 <main>
21 <div class="githubCat">
22 
23 <h1>G</h1>
24 </div>
25 <!-- START WITH YOUR CONTRIBUTION -->
26 <h1 class="contribute">Make your contribution here</h1>
27 <div class="contributions">
28 <!-- APPEND YOUR NAME TO THE LIST -->
29 <!-- HERE -->
30 <h2>1. Sagar Bhat</h2>
31 <h2>2. Aryavardhan Modi</h2>
32 </div>
33 </main>
34 </body>
35 </html>
```

Message (Ctrl+Enter to commit ...)

✓ Commit

Changes

index.html M

PROBLEMS DEBUG CONSOLE TERMINAL

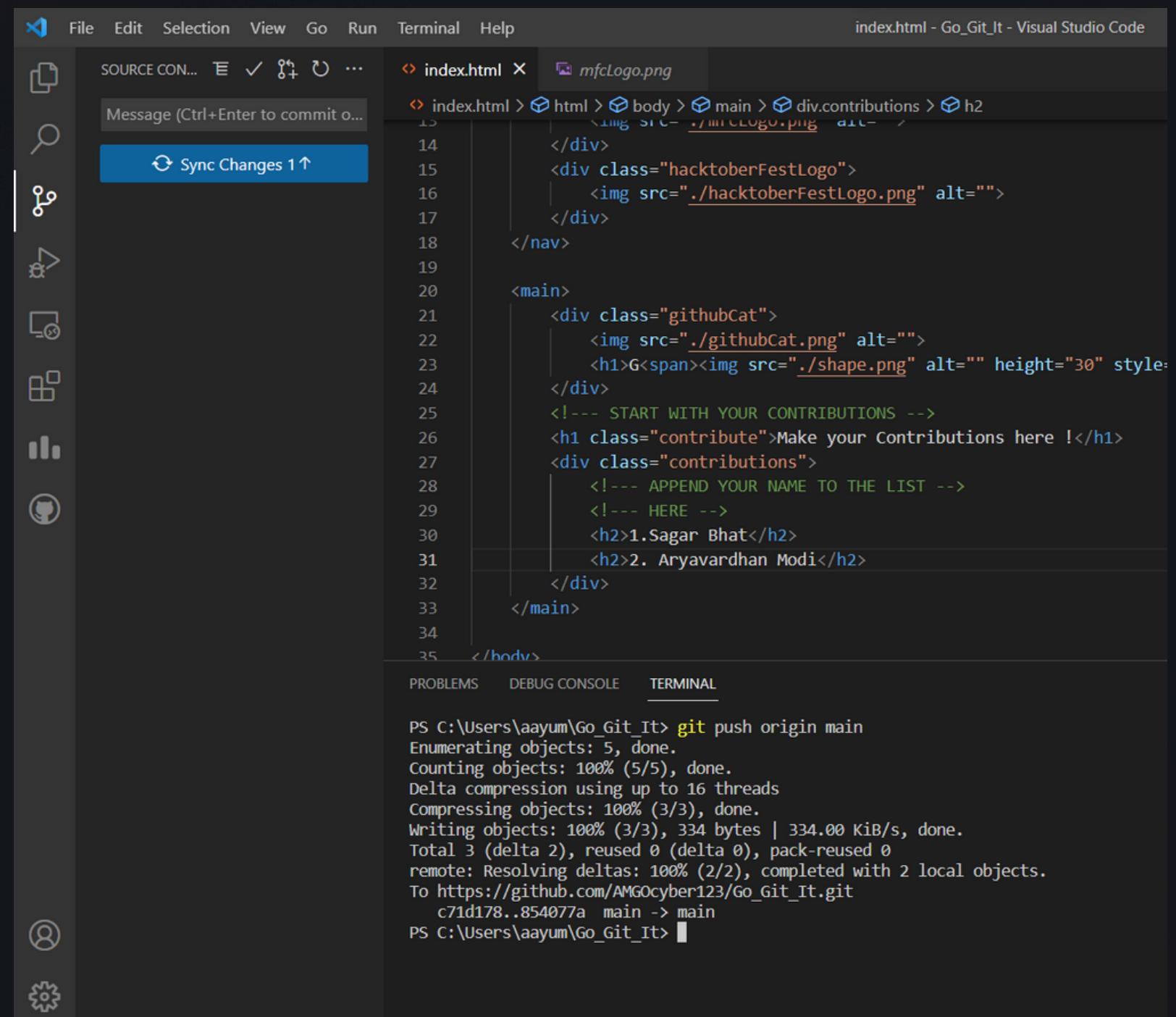
```
PS C:\Users\aaayum\Go_Git_It> git add .
```

```
$ git commit -m "message"
```

The screenshot shows the Visual Studio Code interface with the following details:

- Top Bar:** File, Edit, Selection, View, Go, Run, Terminal, Help, index.html - Go_Git_It - Visual Studio Code
- Sidebar:** Source Control, Message (Ctrl+Enter to commit o...), ✓ Commit, Staged Changes (1), Changes (0).
- File Editor:** Shows the content of index.html. The code includes sections for the header, main content, and footer, featuring logos for mfcLogo.png, hacktoberFestLogo.png, and githubCat.png.
- Bottom Navigation:** PROBLEMS, DEBUG CONSOLE, TERMINAL.
- Terminal:** PS C:\Users\aaayum\Go_Git_It> git commit -m "This is my first commit"
[main 854077a] This is my first commit
1 file changed, 1 insertion(+)
PS C:\Users\aaayum\Go_Git_It>

\$ git push origin main



The image shows a dark-themed interface of Visual Studio Code. In the center, there's a code editor with the file `index.html` open. The code contains HTML and CSS, including references to local files like `mfcLogo.png` and `hacktoberFestLogo.png`. Below the code editor, the terminal window displays the output of a `git push` command:

```
PS C:\Users\aaayum\Go_Git_It> git push origin main
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 16 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 334 bytes | 334.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/AMG0cyber123/Go_Git_It.git
  c71d178..854077a main -> main
PS C:\Users\aaayum\Go_Git_It>
```

Our First ever commit to a repository



AMGOcyber123 This is my first commit

854077a 3 minutes ago 9 commits

Our First ever commit to a repository

This branch is 1 commit ahead of MFC-VIT:main.

AMGOcyber123 This is my first commit

JetBrainsMono-Medium.ttf Other files

README.md readme update

background2.png Other files

githubCat.png Other files

hacktoberFestLogo.png Other files

index.html This is my first commit

mfcLogo.png Other files

shape.png Other files

This branch is 1 commit ahead of MFC-VIT:main.
Open a pull request to contribute your changes upstream.

Open pull request

9 commits
14 hours ago
5 hours ago
14 hours ago
14 hours ago
14 hours ago
10 minutes ago
14 hours ago
14 hours ago
14 hours ago

r123/Go_Git_It/compare/MFC-VIT:Go_Git_It:main...main?expand=1

Create your pull request

Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also [compare across forks](#).

base repository: MFC-VIT/Go_Git_It ▾ base: main ▾ ← head repository: AMGOcyber123/Go_Git_It ▾ compare: main ▾ ✓ Able to merge. These branches can be automatically merged.

This is my first commit

Write Preview

Leave a comment

Attach files by dragging & dropping, selecting or pasting them.

Allow edits by maintainers ⓘ

Create pull request ▾

Reviewers

No reviews

Assignees

No one—assign yourself

Labels

None yet

Projects

None yet

Milestone

No milestone

Development ⓘ

Use [Closing keywords](#) in the description to automatically close issues

(i) Remember, contributions to this repository should follow our [GitHub Community Guidelines](#).

Merging your PR's

MFC-VIT / Go_Git_It Public Edit Pins Watch 1 Fork 1 Star 0

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

This is my first commit #1

Merged AMGOcyber123 merged 1 commit into MFC-VIT:main from AMGOcyber123:main 2 minutes ago

Conversation 0 Commits 1 Checks 0 Files changed 1 +1 -0

AMGOcyber123 commented 5 minutes ago Member ...
No description provided.

This is my first commit 854077a

AMGOcyber123 added the hacktoberfest label 4 minutes ago

AMGOcyber123 added the hacktoberfest-2022 label 2 minutes ago

AMGOcyber123 merged commit f6cda05 into MFC-VIT:main 2 minutes ago Revert

AMGOcyber123 added the HACKTOBERFEST-ACCEPTED label 37 seconds ago

Reviewers No reviews

Assignees No one—assign yourself

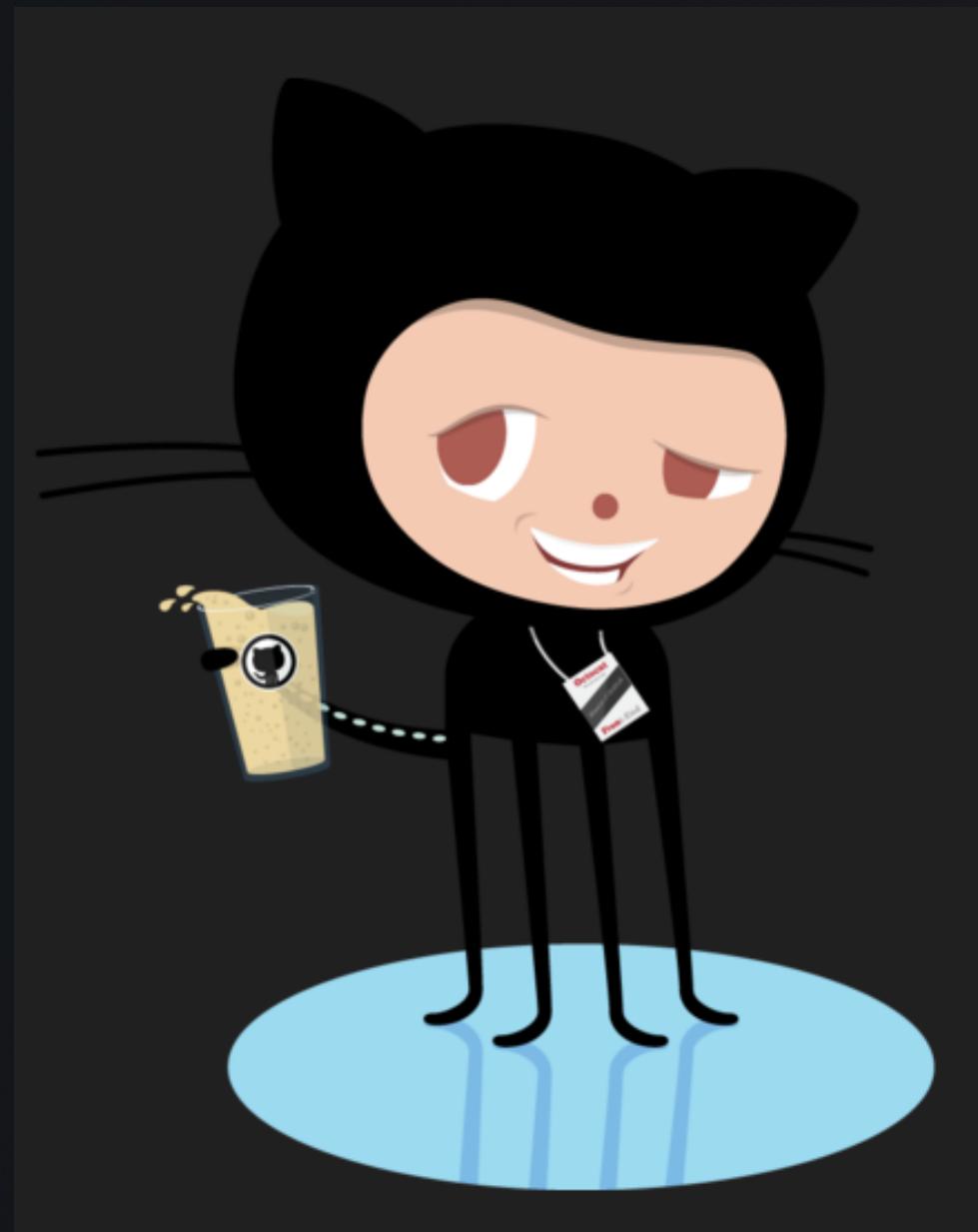
Labels hacktoberfest hacktoberfest-2022 HACKTOBERFEST-ACCEPTED

Projects None yet

Milestone No milestone

Voila !

You have just
contributed in
your first ever
project.



About Hacktober



Let's Talk About
Industrial use of
Git and GitHub





**Building a community of
like minded people who
are always ready to help
and contribute towards
innovation**

People



[View all](#)

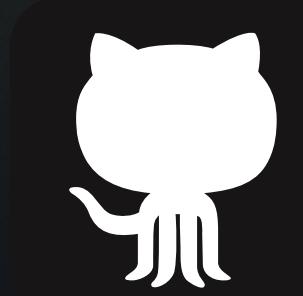


WE WISH YOU A
HAPPY HACKING





OUR SOCIALS



github.com/MFC-VIT



instagram.com/mfc_vit



youtube.com/mozillfirefoxclubvit



linkedin.com/company/mfcvit



Scan For Attendance

