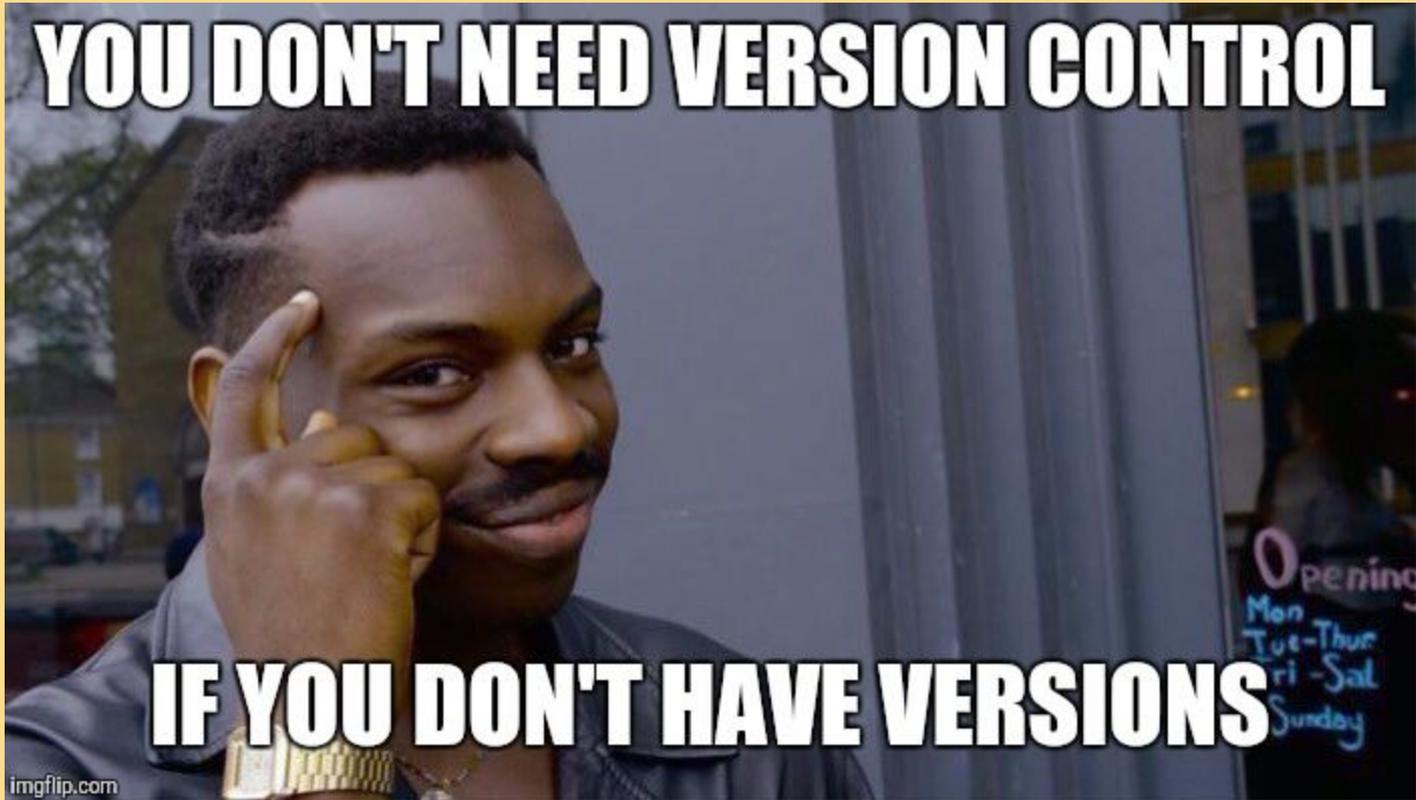
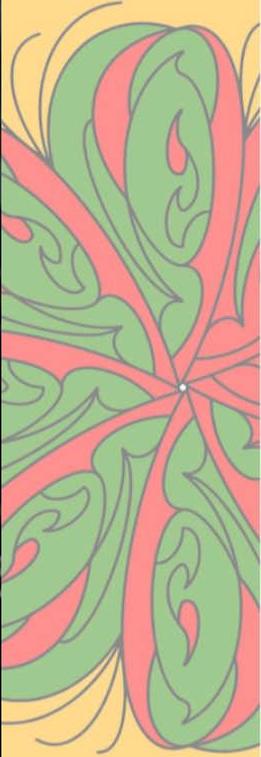


YOU DON'T NEED VERSION CONTROL



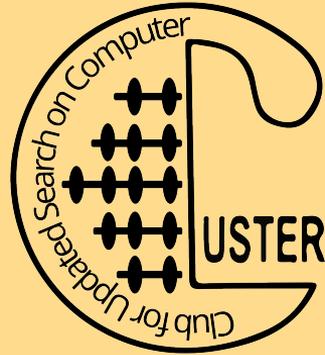
IF YOU DON'T HAVE VERSIONS

imgflip.com



WELCOME !!!!!





Introduction to Git & GitHub



About me...

Kazi Rifat Morshed

3rd year Undergraduate Student,
Computer Science and Engineering Discipline,
Khulna University, Khulna

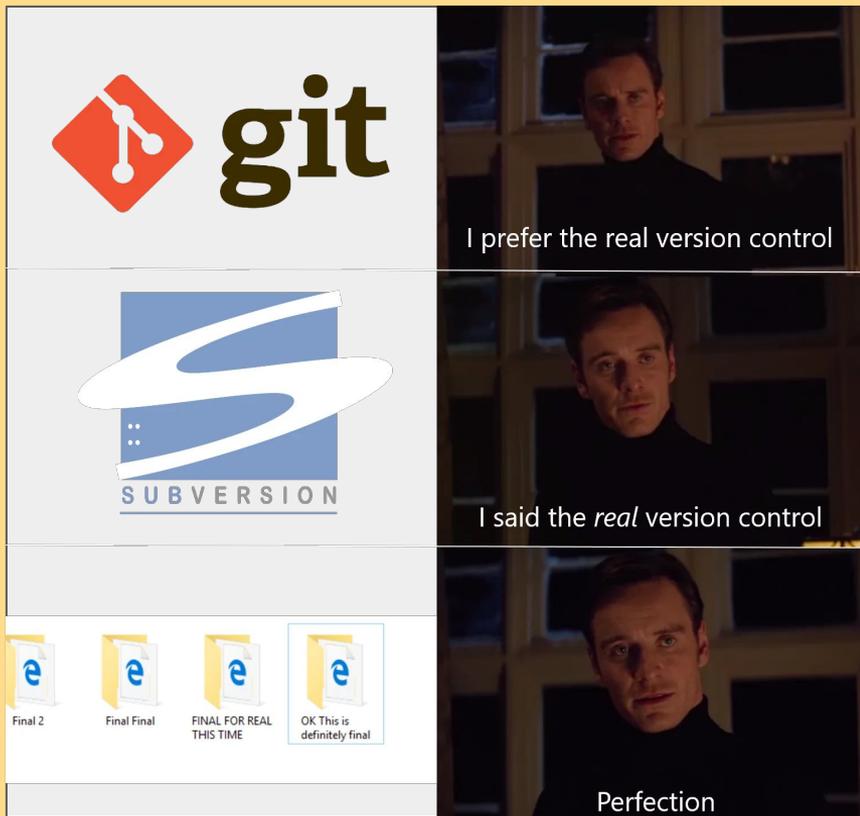
Joint Secretary,
CLUSTER Executive Committee 2026

Contact (email): rifat230220@cseku.ac.bd

Website: <https://kazirifatmorshed.github.io>



Let's enjoy these memes. 🤪🤪🤪



Git and GitHub: Same or Different?



Git is a tool for
Version Control System (VCS)



GitHub is like a combination of
Git and cloud storage. 😊
A platform for **hosting** and
collaborating on Git repositories

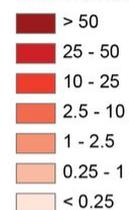


Who uses Version Control System (VCS)?

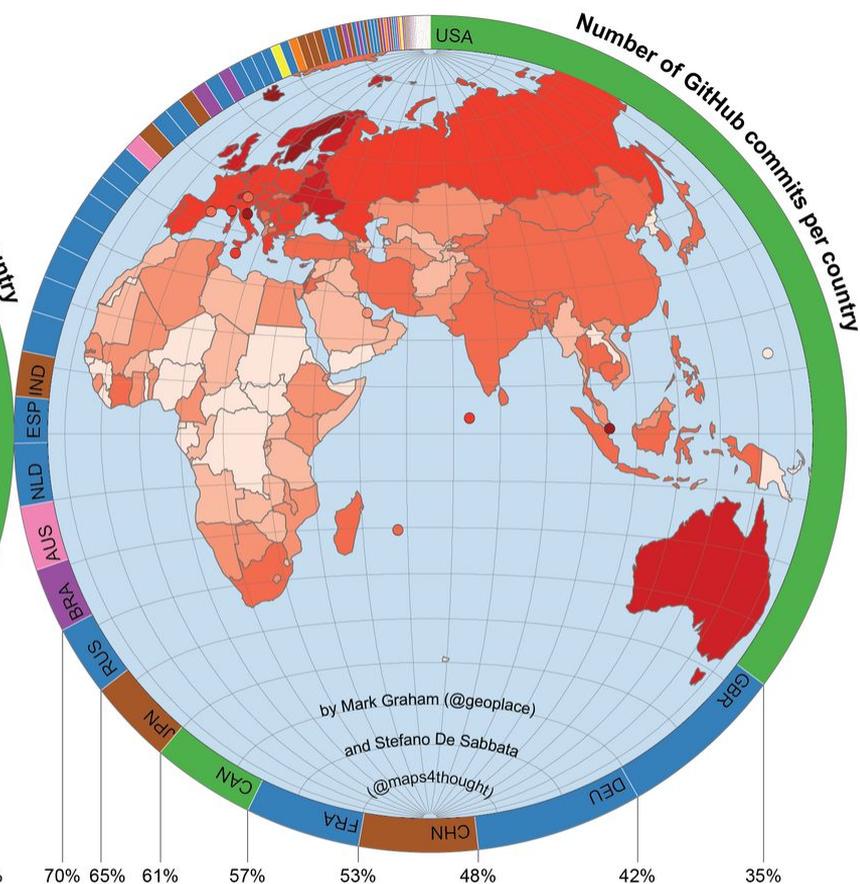
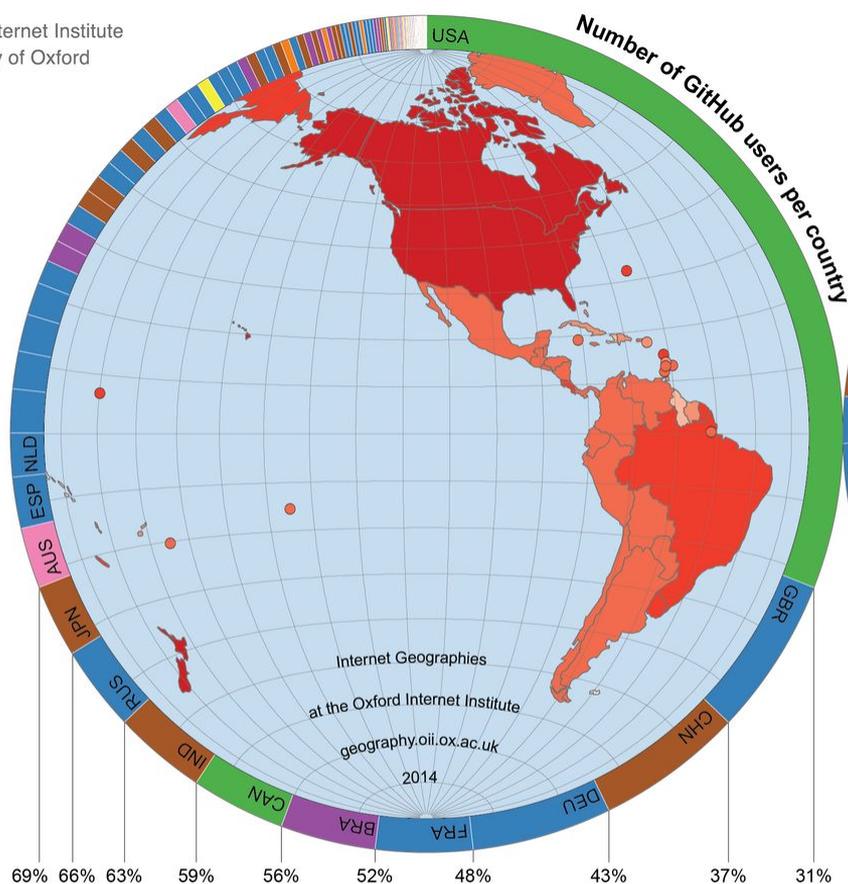
- Software Developers
- Web Developers
- DevOps Engineers
- Data Scientists
- Technical Writers
- Designers (sometimes)
- System Administrators
- **Anyone working on collaborative text-based projects**



**GitHub users
per 100,000
Internet users**



data sources:
GitHub.com
World Bank
data.worldbank.org



GitHub | Mapping collaborative software

Why Version Control?

"FINAL".doc



FINAL.doc!



FINAL_rev.2.doc



FINAL_rev.6.COMMENTS.doc



FINAL_rev.8.comments5.
CORRECTIONS.doc



FINAL_rev.18.comments7.
corrections9.MORE.30.doc



FINAL_rev.22.comments49.
corrections.10.#@\$%WHYDID
ICOMETOGRADSCHOOL????.doc



JORGE CHAN © 2012



Why Version Control?

Jibone prochur project noshto korsi bhai

Backup na korar bhul kore

Er jonno ekhon copy kore oitay kaaj kori

Last e main tate haat dei



Ami like ekta 17 ghontar project

Pura uthay recycle bin e falay

Clear recycle bin kore disilam



I wish...



Why do we need Git?

- Hundreds of folders... Each folder contains hundreds of files!!!
- Which Folder Contains Which Change???
- Who Contributed What?
- Total mess 🤔🤔🤔

Who would win

Most advanced version control system used to keep track of changes in any set of files. Aimed at speed, data integrity, and support for distributed, non-linear workflows.

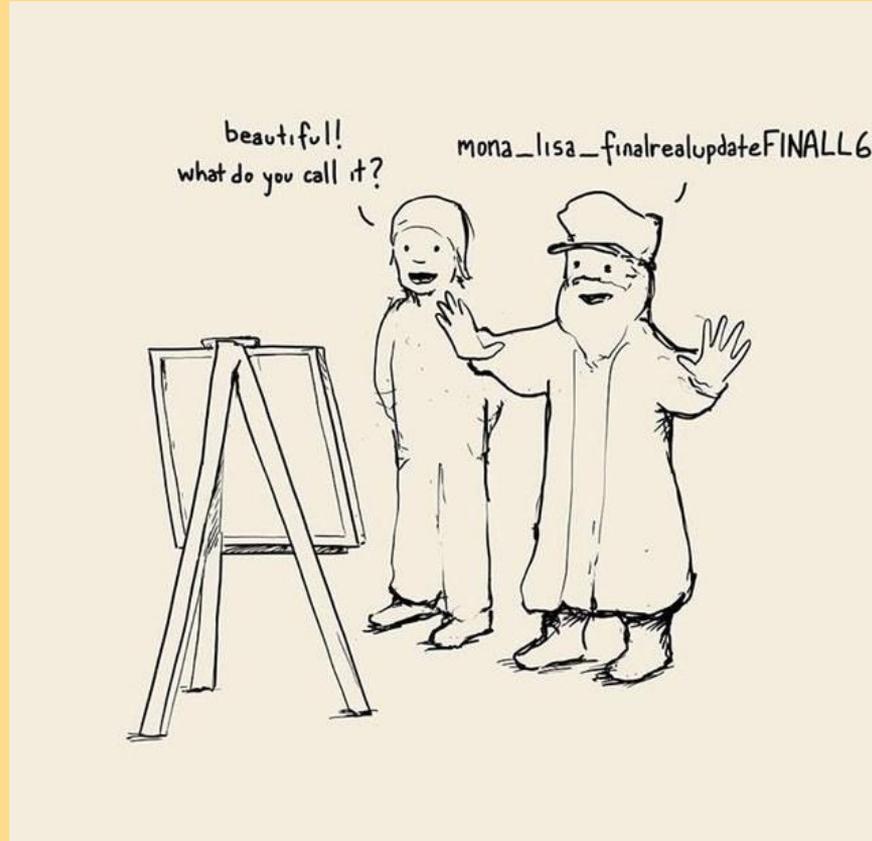


Me

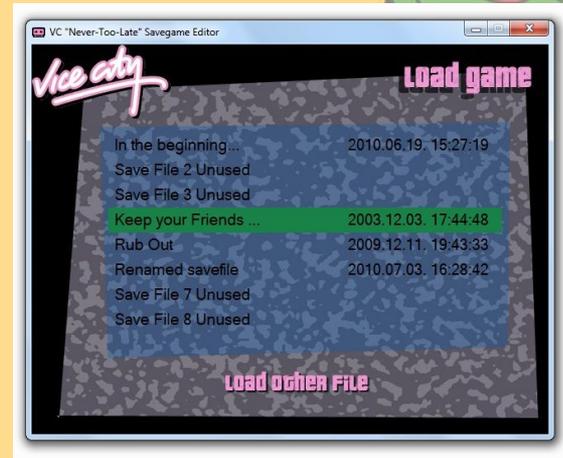
Development > Creations > Android > My Color Manager All Saves >

Name	Date modified	Type	Size
ColorManager	13-03-2017 12:47	File folder	
ColorManager9-5-2016	13-03-2017 12:47	File folder	
ColorManager11-5-2016	13-03-2017 12:48	File folder	
ColorManager save 1	13-03-2017 12:48	File folder	
MyColorManager03-06-16	13-03-2017 12:48	File folder	
MyColorManager 4-7-2016	13-03-2017 12:49	File folder	
MyColorManager 4-7-2016 2nd	13-03-2017 12:49	File folder	
MyColorManager 5-6-16	13-03-2017 12:50	File folder	
MyColorManager 5-8-16	13-03-2017 12:51	File folder	
MyColorManager 6-7-16	13-03-2017 12:51	File folder	
MyColorManager 10-6-2016	13-03-2017 12:52	File folder	
MyColorManager 10-7-2016	13-03-2017 12:52	File folder	
MyColorManager 10-8-2016	13-03-2017 12:53	File folder	
MyColorManager 13-7-2016	13-03-2017 12:54	File folder	
MyColorManager 15-5-16	13-03-2017 12:54	File folder	
MyColorManager 17-5-16	13-03-2017 12:55	File folder	
MyColorManager 18-7-16	13-03-2017 12:56	File folder	
MyColorManager 19-05-16	13-03-2017 12:56	File folder	
MyColorManager 20-5-16 13-24	13-03-2017 12:57	File folder	
MyColorManager 20-8-2016	13-03-2017 12:58	File folder	
MyColorManager 21-7-2016	13-03-2017 12:58	File folder	
MyColorManager 23-5-16 2	13-03-2017 12:59	File folder	
MyColorManager 23-7-2016	13-03-2017 12:59	File folder	
MyColorManager 24-5-16	13-03-2017 13:00	File folder	
MyColorManager 25-8-2016	13-03-2017 13:01	File folder	
MyColorManager 25-9-2016	13-03-2017 13:02	File folder	
MyColorManager 26-5-16	13-03-2017 13:02	File folder	
MyColorManager 26-7-2016	13-03-2017 13:03	File folder	
MyColorManager 27-7-2016	13-03-2017 13:04	File folder	
MyColorManager 27-09-2016	13-03-2017 13:05	File folder	
MyColorManager 30-7-2016	17-09-2017 01:06	File folder	
MyColorManager 2016-9-21	13-03-2017 13:06	File folder	

Version "9.99.999.ultra.pro.max..." 🤪🤪🤪🤪



GIT is a BLESSING when...



Git

- Git is a **version control** system.
- The Solution: A system that records changes to a file or set of files over time so that you can recall specific versions later.
- Key Benefits:
 - Collaboration (Multiple people on one project).
 - Reverting (Going back if you break something).
 - Branching (Testing new features safely).
- Git allows you to take **snapshots** of a repository over time.
- Each of those snapshots is called a Git **commit**.



Life Without Git

Feature	Life Without Git ❌	Life With Git ✅
History	Manual backups (Zips)	Every change is recorded
Collaboration	Overwriting each other	Seamless merging
Experimenting	Terrifying	Easy (just make a branch)
Recovery	"I lost everything"	<code>git checkout</code> to the rescue



Git Pipeline

Command	Action	What happens?
<code>git init</code>	Initialize	Creates a hidden <code>.git</code> folder. This turns a regular folder into a "Git Repository."
<code>git status</code>	Check	Shows you which files are "Untracked" (New) or "Modified."
<code>git add</code> <code><file></code>	Stage	Moves files to the Staging Area. Think of this as putting items in a box before taping it shut.
<code>git commit</code> <code>-m "..."</code>	Commit	Moves files to the Local Repo. This "tapes the box shut" and labels it with a message.



Git Vocabulary

IN CASE OF FIRE



1. git commit



2. git push



3. git out!



Git Vocabulary

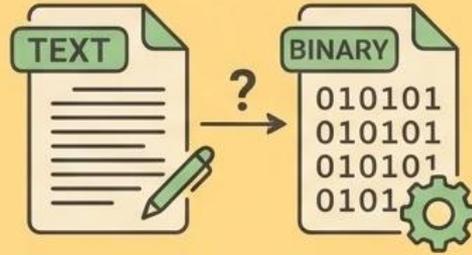
- **Repository (Repo)**^{***}: A project folder that Git is tracking. It contains all the files and the entire history of changes (hidden in the .git folder).
- Working **Directory**: The actual files you see and edit on your computer (e.g., your .cpp or .py files).
- **Staging Area**: A "prep zone." It's where you list which changes you want to include in your next snapshot.
- **Commit**^{***}: A "snapshot" of your project at a specific point in time. Each commit has a unique ID (SHA-1 hash).
- Tracked vs. Untracked:
 - Tracked: Files Git knows about.
 - Untracked: New files you just created that haven't been added to Git yet.



Learn these first



CLI and how to use CLI



Text files vs Binary Files,
Executable File Formats



Markdown



Executable File Formats

Windows:

- **.exe (Executable):**
 - The most common executable format for Windows.
 - Contains machine code that Windows can directly execute.
 - Often used for applications and installers.
- **.msi (Microsoft Installer):**
 - A package format used for installing, maintaining, and removing software on Windows.
 - Contains installation instructions and files.

macOS:

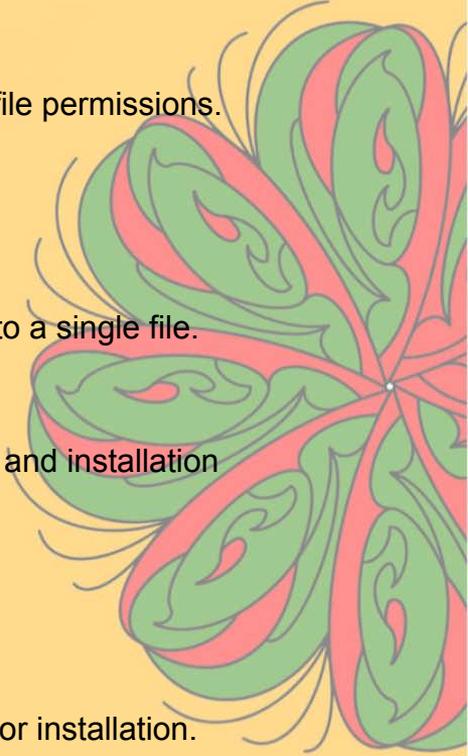
- **.app (Application Bundle):**
 - A directory structure that contains an application's executable code and resources.
 - Presented as a single file in Finder.
- **.dmg (Disk Image):**
 - A disk image file that contains an application or installer.
 - Mounted as a virtual drive when opened.
- **.pkg (Package installer)**
 - MacOs package installer.



Executable File Formats

Linux:

- **No single standard:** Linux uses various formats, and executability is often determined by file permissions.
- **Executable files (no extension, or various):**
 - Linux executables can be compiled binaries with no specific extension.
 - Shell scripts (.sh) are also executable.
- **.AppImage:**
 - A portable software format that packages an application and all its dependencies into a single file.
 - Runs on most Linux distributions without installation.
- **.deb (Debian/Ubuntu):**
 - Package format used by Debian-based distributions like Ubuntu. Contains software and installation instructions.
- **.rpm (Red Hat Package Manager):**
 - Package format used by Red Hat-based distributions like Fedora and CentOS.
 - Similar to .deb but for different distributions.
- **.tar.gz (Gzip compressed Tar archive):**
 - A compressed archive containing software files. Often requires manual compilation or installation.
- **.tar.xz (XZ compressed Tar archive):**
 - Similar to tar.gz, but uses a different and often more efficient compression algorithm.
- **Snap packages (.snap):** A containerized software package.



BREAK TIME 🤔🤔🤔

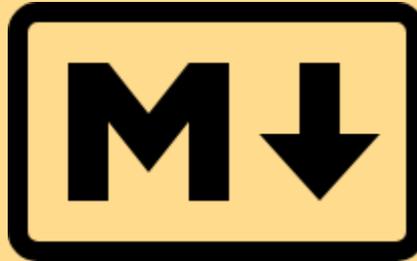


Introduction to Markdown

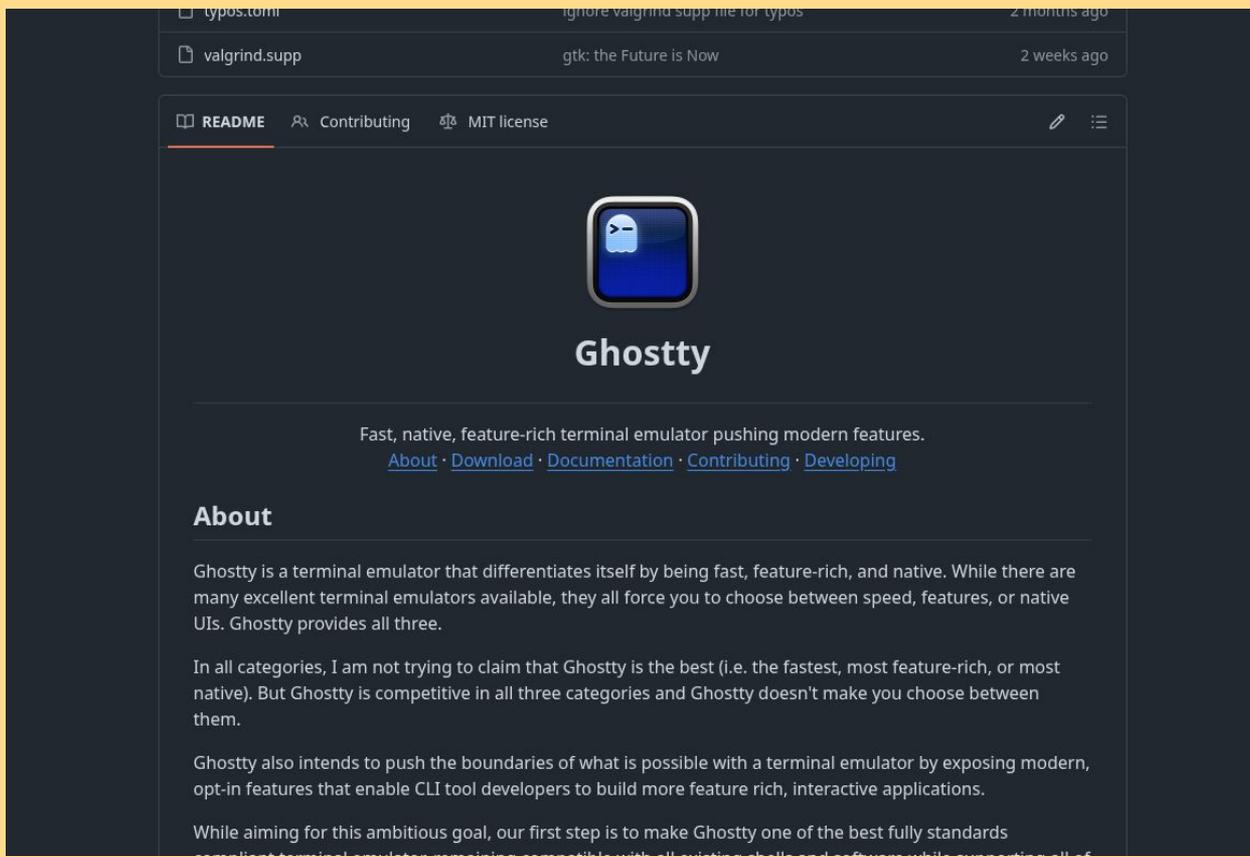
Lightweight markup language

For creating formatted text using a plain-text editor

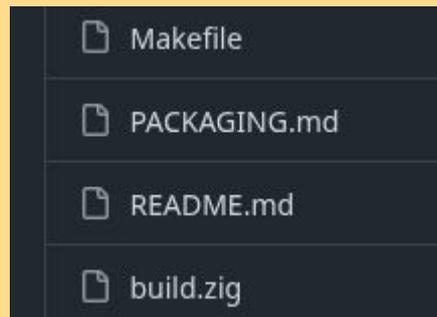
Kinda similar to HTML



Why do you need to learn Markdown?



The screenshot shows the GitHub repository for Ghostty. At the top, there are commit messages: 'typos.toml ignore valgrind supp file for typos' (2 months ago) and 'valgrind.supp gtk: the Future is Now' (2 weeks ago). The README header includes 'README', 'Contributing', and 'MIT license' links. The main content features the Ghostty logo (a blue terminal window with a white ghost icon) and the title 'Ghostty'. Below the logo, it states 'Fast, native, feature-rich terminal emulator pushing modern features.' and provides links for 'About', 'Download', 'Documentation', 'Contributing', and 'Developing'. The 'About' section describes Ghostty as a fast, feature-rich, and native terminal emulator. It also mentions that Ghostty is competitive in all three categories (speed, features, native UIs) and doesn't force users to choose between them. The 'About' section continues with 'Ghostty also intends to push the boundaries of what is possible with a terminal emulator by exposing modern, opt-in features that enable CLI tool developers to build more feature rich, interactive applications.' and 'While aiming for this ambitious goal, our first step is to make Ghostty one of the best fully standards compliant terminal emulators remaining compatible with all existing shells and software while supporting all of



For more details, see [About Ghostty](#).

Download

See the [download page](#) on the Ghostty website.

Documentation

See the [documentation](#) on the Ghostty website.

Contributing and Developing

If you have any ideas, issues, etc. regarding Ghostty, or would like to contribute to Ghostty, please check out our "[Contributing to Ghostty](#)" document. Those who would like to contribute to Ghostty's development as well should also read the "[Developing Ghostty](#)" document for more details.

Roadmap and Status

The high-level ambitious plan for the project, in order:

#	Step	Status
1	Standards-compliant terminal emulation	✓
2	Competitive performance	✓
3	Basic customizability -- fonts, bg colors, etc.	✓
4	Richer windowing features -- multi-window, tabbing, panes	✓

Inside these README

```
Preview Code Blame 196 Lines (153 loc) · 8.54 KB
1 <!-- LOGO -->
2 <h1>
3 <p align="center">
4 
8 Fast, native, feature-rich terminal emulator pushing modern features.
9 <br />
10 <a href="#about">About</a>
11 .
12 <a href="https://ghostty.org/download">Download</a>
13 .
14 <a href="https://ghostty.org/docs">Documentation</a>
15 .
16 <a href="CONTRIBUTING.md">Contributing</a>
17 .
18 <a href="HACKING.md">Developing</a>
19 </p>
20 </p>
21
22 ▾ ## About
23
24 Ghostty is a terminal emulator that differentiates itself by being
25 fast, feature-rich, and native. While there are many excellent terminal
26 emulators available, they all force you to choose between speed,
27 features, or native UIs. Ghostty provides all three.
28
29 In all categories, I am not trying to claim that Ghostty is the
30 best (i.e. the fastest, most feature-rich, or most native). But
```

```
42 as a drop-in replacement for your existing terminal emulator.
43
44 For more details, see [About Ghostty](https://ghostty.org/docs/about).
45
46 ▾ ## Download
47
48 See the [download page](https://ghostty.org/download) on the Ghostty website.
49
50 ▾ ## Documentation
51
52 See the [documentation](https://ghostty.org/docs) on the Ghostty website.
53
54 ▾ ## Contributing and Developing
55
56 If you have any ideas, issues, etc. regarding Ghostty, or would like to
57 contribute to Ghostty through pull requests, please check out our
58 ["Contributing to Ghostty"](CONTRIBUTING.md) document. Those who would like
59 to get involved with Ghostty's development as well should also read the
60 ["Developing Ghostty"](HACKING.md) document for more technical details.
61
62 ▾ ## Roadmap and Status
63
64 The high-level ambitious plan for the project, in order:
65
66 | # | Step | Status |
67 | :-: | ----- | :--: |
68 | 1 | Standards-compliant terminal emulation | ✓ |
69 | 2 | Competitive performance | ✓ |
70 | 3 | Basic customizability -- fonts, bg colors, etc. | ✓ |
71 | 4 | Richer windowing features -- multi-window, tabbing, panes | ✓ |
72 | 5 | Native Platform Experiences (i.e. Mac Preference Panel) | ⚠ |
73 | 6 | Cross-platform `libghostty` for Embeddable Terminals | ⚠ |
74 | 7 | Windows Terminals (including PowerShell, Cmd, WSL) | ✗ |
75 | N | Fancy features (to be expanded upon later) | ✗ |
76
77 Additional details for each step in the big roadmap below:
78
```



Lookback: HTML

```
<html>

<head>
<title> A Simple Web Page </title>
</head>

<body bgcolor="white" text="black">

<h1> My first page </h1>

This is my first page :)

<br>

<a href="http://mywebsite/cv.pdf">
Click here to see my curriculum.
</a>

</body>

</html>
```



A Simple Web Page - Mozilla Firefox

File Edit View History Bookmarks Tools Help

file:///C:/page.html

My first page

This is my first page :)

[Click here to see my curriculum.](http://mywebsite/cv.pdf)



help.md 730 Words

Mou

![Mou icon](http://mouapp.com/Mou_128.png)

Overview

Mou, the missing Markdown editor for *web developers*.

Syntax

Strong and Emphasize

strong or `__strong__` (Cmd + B)

emphasize or `_emphasize_` (Cmd + I)

Sometimes I want a lot of text to be bold. Like, seriously, a *LOT* of text

Blockquotes

> Right angle brackets > are used for block quotes.

Links and Email

An email <example@example.com> link.

Simple inline link <http://chenluois.com>, another inline link [Smaller](http://smallerapp.com), one more inline link with title [Resize](http://resizesafari.com "a Safari extension").

A [reference style][id] link. Input id, then anywhere in the doc, define the link with corresponding id:

[id]: http://mouapp.com "Markdown editor on Mac OS X"

Mou



Overview

Mou, the missing Markdown editor for *web developers*.

Syntax

Strong and Emphasize

strong or `strong` (Cmd + B)

emphasize or `emphasize` (Cmd + I)

Sometimes I want a lot of text to be bold. Like, seriously, a *LOT* of text

Blockquotes

“

Right angle brackets > are used for block quotes.



Basic Syntax

These are the elements outlined in John Gruber's original design document. All these elements.

Element	Markdown Syntax
Heading	# H1 ## H2 ### H3
Bold	**bold text**
Italic	<i>*italicized text*</i>
Blockquote	> blockquote
Ordered List	1. First item 2. Second item 3. Third item
Unordered List	- First item - Second item - Third item
Code	`code`
Horizontal Rule	---
Link	[title](https://www.example.com)
Image	![alt text](image.jpg)

Extended Syntax

These elements extend the basic syntax by adding additional features. Not all Markdown application elements.

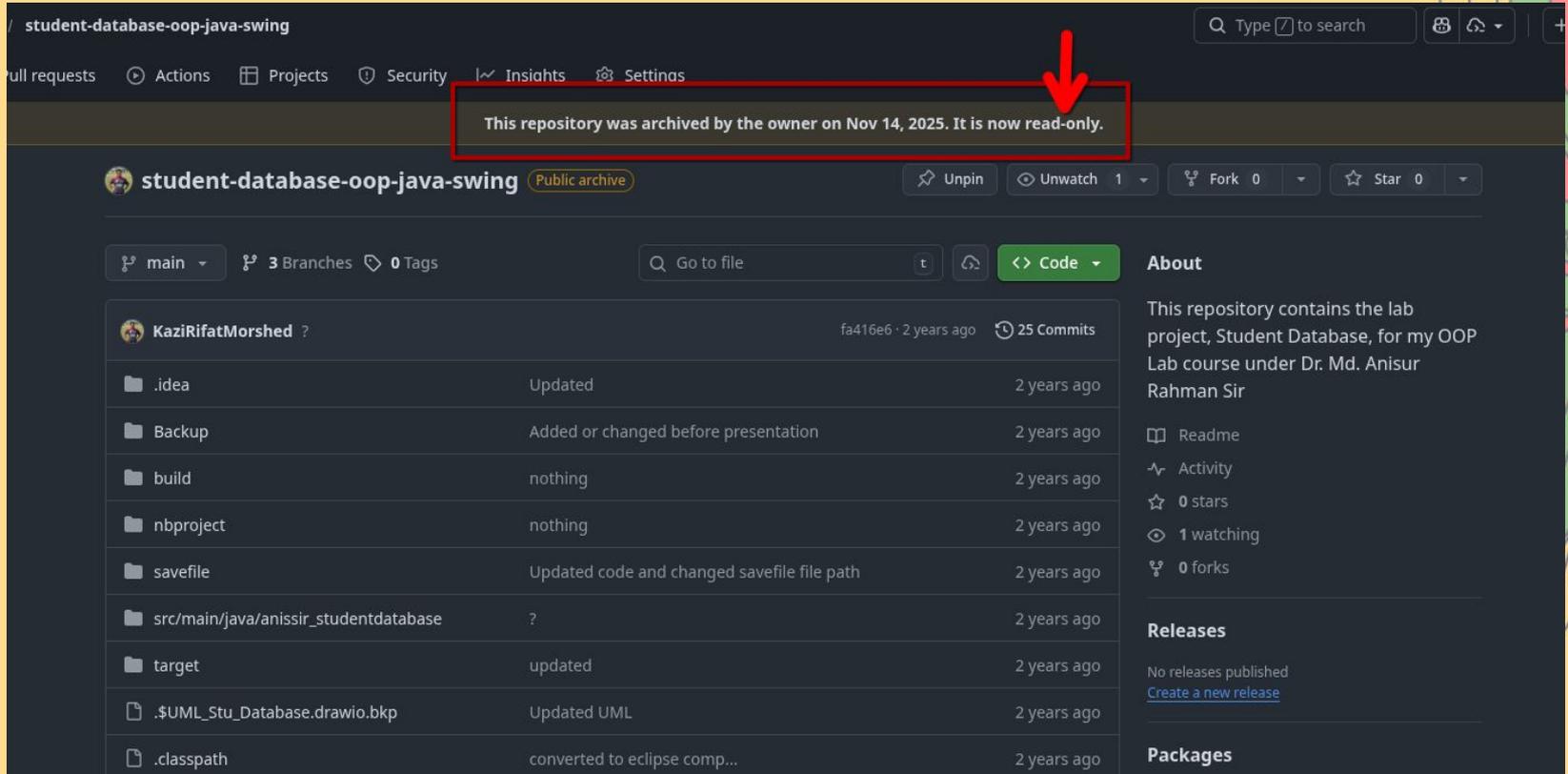
Element	Markdown Syntax
Table	Syntax Description ----- ----- Header Title Paragraph Text
Fenced Code Block	```` { "firstName": "John", "lastName": "Smith", "age": 25 } ````
Footnote	Here's a sentence with a footnote. [¹] [¹]: This is the footnote.
Heading ID	### My Great Heading {#custom-id}
Definition List	term : definition
Strikethrough	~~The world is flat.~~
Task List	- [x] Write the press release - [] Update the website - [] Contact the media



CLI (Command Line Interface)



Public Archive



student-database-oop-java-swing

full requests Actions Projects Security Insights Settings

This repository was archived by the owner on Nov 14, 2025. It is now read-only.

student-database-oop-java-swing **Public archive** Unpin Unwatch 1 Fork 0 Star 0

main 3 Branches 0 Tags Go to file Code

KaziRifatMorshed · fa416e6 · 2 years ago · 25 Commits

.idea	Updated	2 years ago
Backup	Added or changed before presentation	2 years ago
build	nothing	2 years ago
nbproject	nothing	2 years ago
savefile	Updated code and changed savefile file path	2 years ago
src/main/java/anissir_studentdatabase	?	2 years ago
target	updated	2 years ago
.\$UML_Stu_Database.drawio.bkp	Updated UML	2 years ago
.classpath	converted to eclipse comp...	2 years ago

About

This repository contains the lab project, Student Database, for my OOP Lab course under Dr. Md. Anisur Rahman Sir

Readme Activity 0 stars 1 watching 0 forks

Releases

No releases published
[Create a new release](#)

Packages

Enjoy this video(🏠)



[The Untold Story of Git](#) (click)

Never Mind...

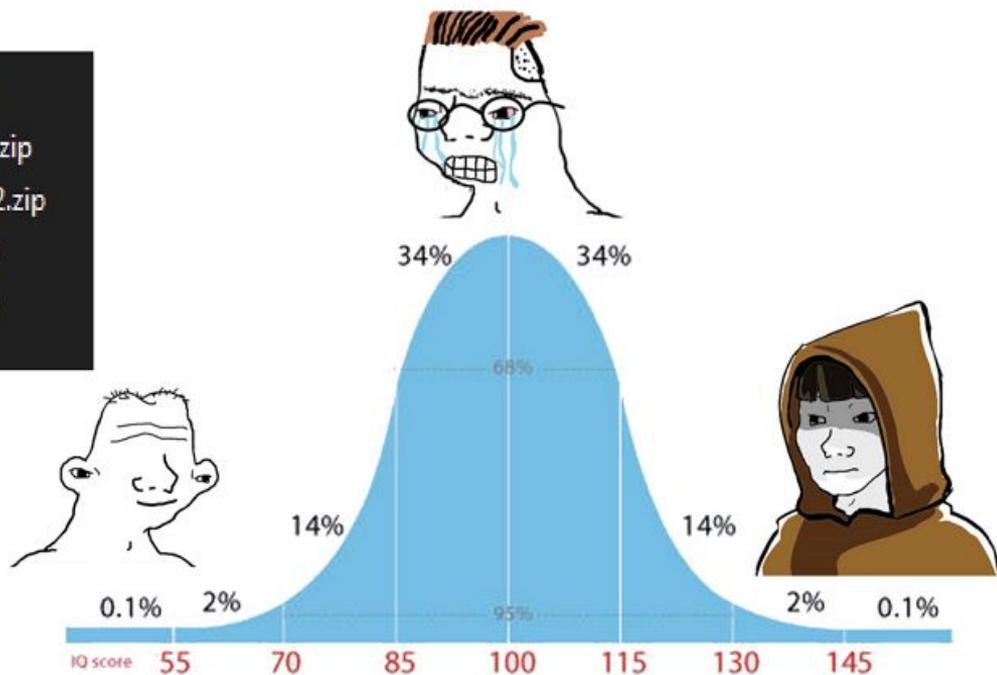
When you create a
GitHub account
without knowing GIT





- final.zip
- last save.zip
- last save2.zip
- save1.zip
- save2.zip

- final.zip
- last save.zip
- last save2.zip
- save1.zip
- save2.zip





Google

guthib

All

Images

News

Shopping

Videos



guthib.com

<https://guthib.com>

You spelled it wrong.

You spelled it wrong.



Git + Hub



Git for
Version Control

+

Google Drive



Cloud
Storage

+

More
Tools
Features

=



Other Similar
Platforms:



Server...



Server...



YT video: [Over 200,000 Servers in One Place! Visiting Hetzner in Falkenstein \(Germany\)](#)

Server...

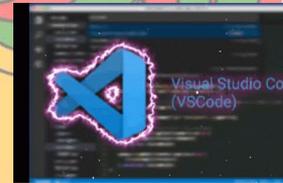
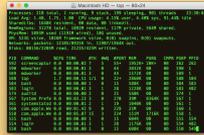
Feature / Component	Expensive Flagship Server (Enterprise-Grade)	Budget Gaming PC (Entry-Level/Mainstream)
Primary Purpose	Hyperscale data centers, AI/ML training, complex simulations, mission-critical applications	Entry-level 1080p gaming, basic productivity, web Browse
CPU (Processor)	2x AMD EPYC "Turin" / Intel Xeon "Granite Rapids" (e.g., 128-192 Cores each, Dual-Socket Configuration) (Massive core count, high IPC for parallel workloads, immense cache, reliability features, specialized accelerators)	AMD Ryzen 5 7500F / Intel Core i3-14100F (6 Cores / 4 Cores, focuses on decent single-core performance for gaming)
RAM (Memory)	1TB+ (e.g., 12x 128GB) DDR5 ECC RDIMM (Maximized capacity, error detection & correction, registered for stability, multi-channel architecture)	16GB (2x 8GB) DDR4-3200MHz / DDR5-5200MHz (Sufficient for most games, speed over sheer capacity)
GPU (Graphics Card)	4x NVIDIA H200 / AMD Instinct MI300X (Purpose-built for AI/ML, HPC; massive VRAM (e.g., 141GB HBM3e), specialized tensor cores, NVLink interconnects for multi-GPU scaling)	NVIDIA GeForce RTX 3050 (6GB) / AMD Radeon RX 6600 (8GB) (Entry-level graphics, capable of 1080p medium settings in many games)



Communicate with GitHub



Some clients:



Git Vocabulary



pull



push

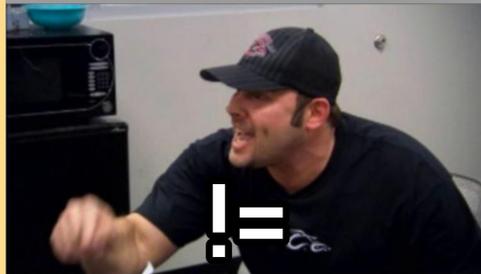


BREAK TIME 🤔🤔🤔

Mathematicians:



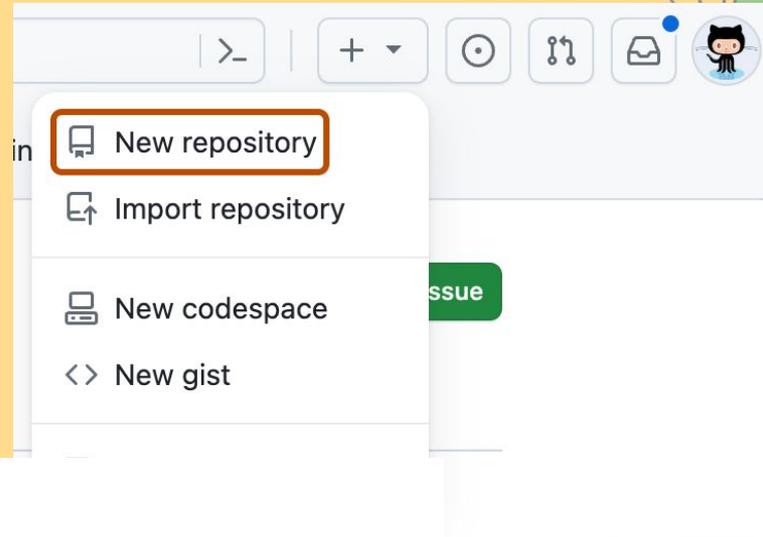
Programmers:





GitHub Vocabulary: **Repository**

A GitHub repository is a **storage space**, **similar to a folder**, that holds all the files and project history for a software development project on GitHub.



Owner * **Repository name ***

 octocat ▾ / ✓

Great repository names are short and memorable. Need inspiration? How about [vigilant-meme?](#)

Description (optional)

GitHub Vocabulary: Repository

This repository was archived by the owner on May 23, 2025. It is now read-only.

KaziRifatMorshed / Quote-of-my-day Public archive

Notifications Fork 0 Star 0

Code Issues Pull requests Actions Projects Security Insights

main Go to file Code

About

This is a GUI desktop app written in C for PERSONAL USE which will remind me a quote every day from its internally predetermined 31 quotes

Readme
GPL-3.0 license
Activity
0 stars
1 watching
0 forks
Report repository

Releases

No releases published

Packages

No packages published

Languages

C 97.7% Shell 2.3%

File Name	Commit	Time
font	First Commit	last year
.gitignore	Create .gitignore	2 months ago
LICENSE	Initial commit	last year
Quote_of_my_day	executable added	2 months ago
Quote_of_my_day-cli	CLI version added	2 months ago
Quote_of_my_day-cli.c	CLI version added	2 months ago
Quote_of_my_day.c	Update Quote_of_my_day.c	2 months ago
Quote_of_my_day.desktop	Update Quote_of_my_day.desktop	2 months ago
README.md	First Commit	last year
Screenshot_2024-08-01-02-...	First Commit	last year
config.h	First Commit	last year
icon.png	icon created	2 months ago
icon.svg	icon created	2 months ago
install_archcraft_openbox_x...	Update install_archcraft_openbo...	last year
quotes.txt	Update quotes.txt	2 months ago

Name	Size	Modified
.git	12 items	6/16/25 at 7:06 PM
font	5 items	6/16/25 at 7:00 PM
.gitignore	8 B	6/16/25 at 7:00 PM
config.h	655 B	6/16/25 at 7:00 PM
icon.png	1.3 KiB	6/16/25 at 7:00 PM
icon.svg	3.0 KiB	6/16/25 at 7:00 PM
install_archcraft_openbox_xfce.sh	983 B	6/16/25 at 7:00 PM
LICENSE	34.3 KiB	6/16/25 at 7:00 PM
Quote_of_my_day	633.5 KiB	6/16/25 at 7:00 PM
Quote_of_my_day.c	21.3 KiB	6/16/25 at 7:00 PM
Quote_of_my_day.desktop	216 B	6/16/25 at 7:00 PM
Quote_of_my_day-cli	19.6 KiB	6/16/25 at 7:00 PM
Quote_of_my_day-cli.c	11.2 KiB	6/16/25 at 7:00 PM
quotes.txt	5.8 KiB	6/16/25 at 7:00 PM
quotes_for_c.c	7.7 KiB	6/16/25 at 7:00 PM
README.md	437 B	6/16/25 at 7:00 PM
Screenshot_2024-08-01-02-41-36_1920x1080.png	280.1 KiB	6/16/25 at 7:00 PM

2 folders, 15 files (1,020.1 KiB)

GitHub Vocabulary: **Clone** vs **Pull**

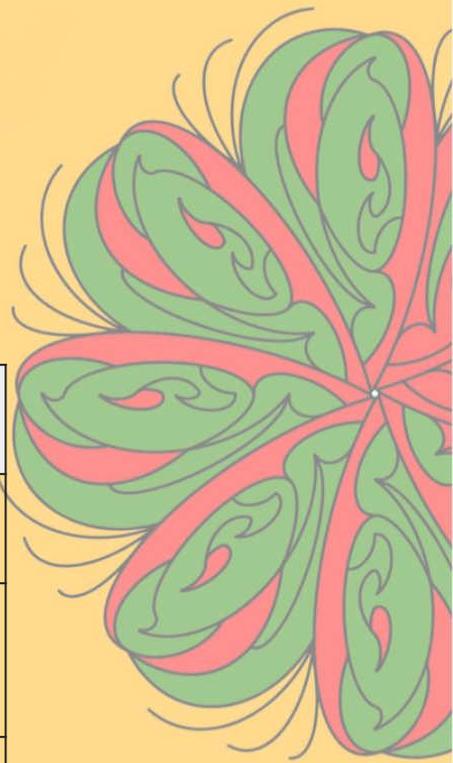
Feature	git clone	git pull
When to use?	The very first time you get the project.	Every time after that to get updates.
Target		
What it does?	Copies the entire history, all branches, and files.	Only gets new changes and merges them.
Remote Setup	Automatically sets up "origin" for you.	Requires "origin" to already be set up.



GitHub Vocabulary: **Fetch** vs **Pull**

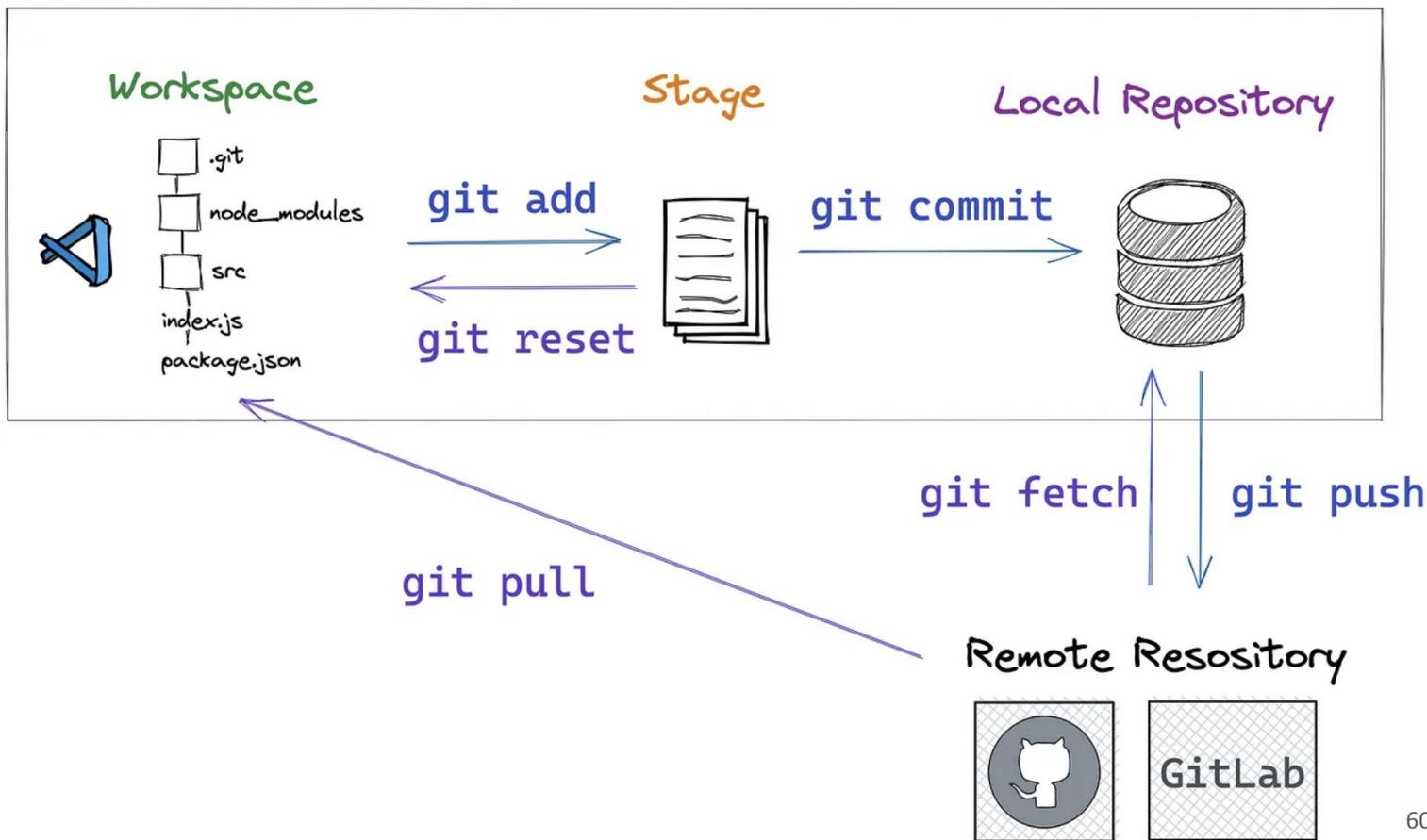
- **git fetch**: "Go see what's new."
- **git pull**: "Go see what's new AND bring it into my files right now."

Feature	git fetch	git pull
Action	Downloads metadata/commits.	Downloads + Merges.
Safe?	Yes. It never touches your local files.	Risky. It can cause merge conflicts immediately.
Workflow	fetch -> log -> merge.	pull (does it all at once).



Concepts

Local



quiz

What is the primary purpose of the 'Staging Area' in Git?

- A. To automatically delete old versions of code.
- B. To serve as a permanent backup of all project files.
- C. To run your code and check for bugs before saving.
- D. To allow you to select specific changes to be included in the next commit.



quiz

What is the primary purpose of the 'Staging Area' in Git?

- A.
- B.
- C.
- D. To allow you to select specific changes to be included in the next commit.



BREAK TIME 🤔🤔🤔



.gitignore

- The .gitignore file tells Git which files and folders to ignore (not track).
- This is useful for keeping log files, temporary files, build artifacts, or personal files out of your repository.
- Examples of files to ignore: log files, temporary files, hidden files, personal files, OS/editor files, etc.
- The .gitignore file itself is tracked by Git, so everyone using the repository ignores the same files.
- When to Use .gitignore
 - When you want to keep sensitive, local, or unnecessary files out of your repository
 - When sharing a project with others and want to avoid cluttering Git history
 - When working with build tools or editors that create extra files



.gitignore: Tips

- If a file is already being tracked by Git (meaning it has been added or committed in the past), adding its name to .gitignore will not stop Git from tracking changes to it.
- .gitignore only prevents untracked files from being added to the staging area. Once a file is in the "Git System," Git will continue to watch it, even if you tell it to ignore it later.
- `git rm --cached <filename>`



.gitignore: struggling ???

- Add the file/pattern to .gitignore: (use a text editor)
 - `echo "secret.txt" >> .gitignore`
- Remove it from Git's memory:
 - `git rm --cached secret.txt`
- Commit the change:
 - `git add .gitignore`
 - `git commit -m`
"Stop tracking secret.txt and ignore it moving forward"



```
.gitignore x
> Quote-of-my-day-qt > .gitignore
# This file is used to ignore files which are generated
# -----

*~
*.autosave
*.a
*.core
*.moc
*.o
*.obj
*.orig
*.rej
*.so
*.so.*
*_pch.h.cpp
*_resource.rc
*.qm
.*
*.*
core
!core/
tags
.DS_Store
.directory
*.debug
Makefile*
*.prl
*.app
moc_*.cpp
ui_*.h
qrc_*.cpp
Thumbs.db
*.res
*.rc
/.qmake.cache
/.qmake.stash

# qcreator generated files
*.pro.user*
*.qbs.user*
CMakeLists.txt.user*
```

```
# Visual Studio generated files
*.ib_pdb_index
*.idb
*.ilk
*.pdb
*.sln
*.suo
*.vcproj
*vcproj.*.*.user
*.ncb
*.sdf
*.opensdf
*.vcxproj
*vcxproj.*

# MinGW generated files
*.Debug
*.Release

# Python byte code
*.pyc

# Binaries
# -----
*.dll
*.exe

# Directories with generated files
.moc/
.obj/
.pch/
.rcc/
.uic/
/build*/
```



General Permissions **Share** Details

Type: Folder

Open With: Dolphin Change...

Location: [Redacted]

Size: 44.6 MiB (46,782,275)
1,105 files, 379 sub-folders

Refresh Stop Explore in Filelight

OK Cancel

General Permissions Share Details

Type: Folder

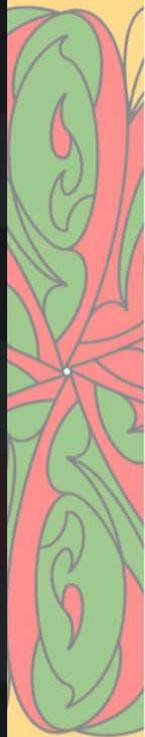
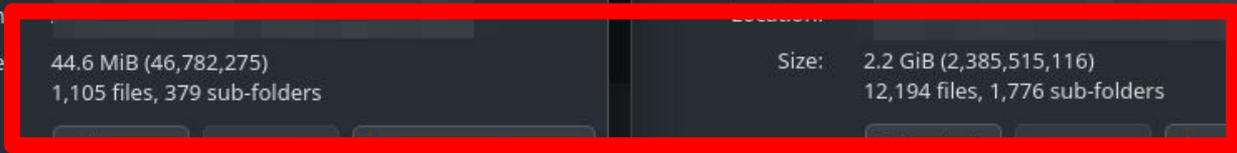
Open With: Dolphin Change...

Location: [Redacted]

Size: 2.2 GiB (2,385,515,116)
12,194 files, 1,776 sub-folders

Refresh Stop Explore in Filelight

OK Cancel



BREAK TIME 🤔🤔🤔



should I ignore

- should i ignore **him**
- should i ignore **him for awhile**
- should i ignore **her**
- should i ignore **my ex**
- should i ignore **her if she ignores me**
- should i ignore **his text**
- should i ignore **him if he ignores me**
- should i ignore **his text if he ignores mine**
- should i ignore **my boyfriend**
- should i ignore **him back**



should I git ignore|

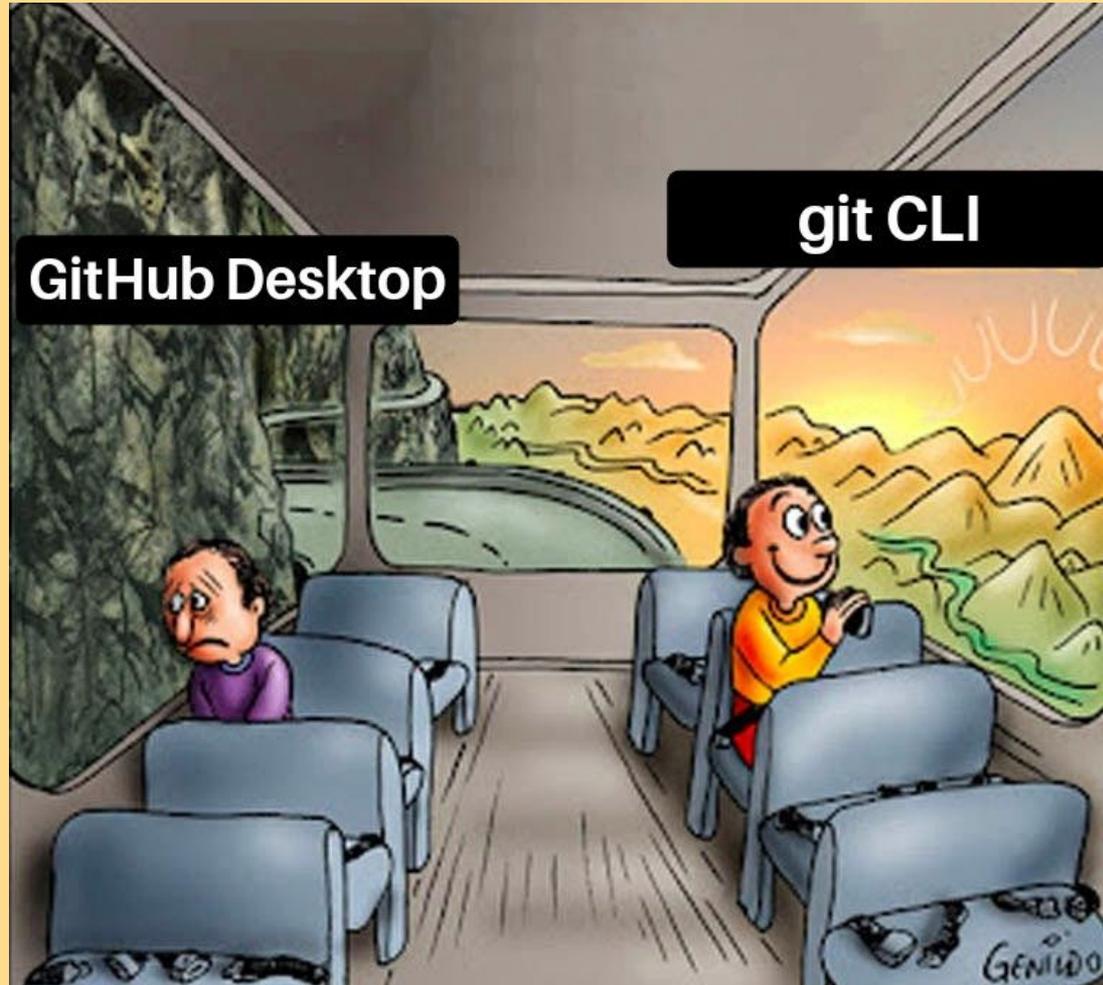
- should i gitignore **package-lock.json**
- should i gitignore **.idea**
- should i gitignore **node_modules**
- should i gitignore **pycache**
- should i gitignore **yarn.lock**
- should i gitignore **ds_store**
- should i gitignore **.vscode**
- should i gitignore **package.json**
- should i gitignore **venv**
- should i gitignore **gitignore**



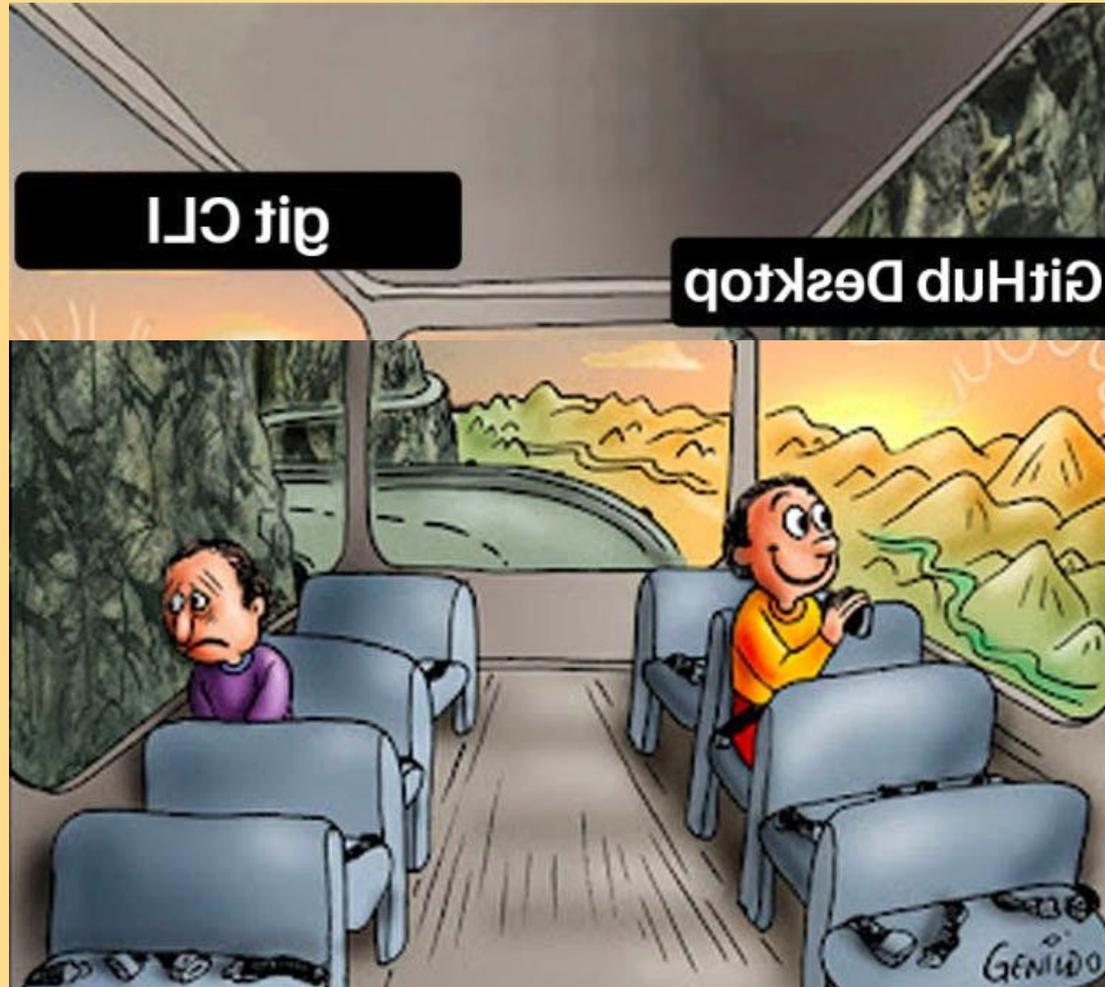
We need
Something
eaziiiiiiii.....



We got
Something
eaziiiiiii.....



We got
Something
eaziiiiiiii.....





Home



Trash



Apache-JMeter



Sourcetree



GitHub Desktop

File Edit View Repository Branch Help

Welcome to GitHub Desktop

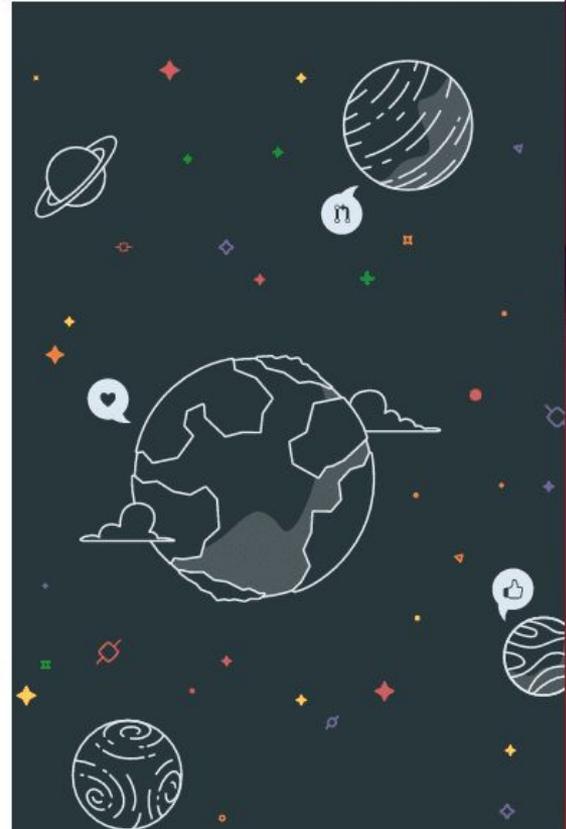
GitHub Desktop is a seamless way to contribute to projects on GitHub and GitHub Enterprise. Sign in below to get started with your existing projects.

New to GitHub? [Create your free account.](#)

[Sign in to GitHub.com](#)[Sign in to GitHub Enterprise](#)

By creating an account, you agree to the [Terms of Service](#). For more information about GitHub's privacy practices, see the [GitHub Privacy Statement](#).

GitHub Desktop sends usage metrics to improve the product and inform feature decisions. Read more about what metrics are sent and how we use them [here](#).




```

----- |
----- |
5 5 | ; print new line<br>      mov dl, 10 ; new line only <br>          ; but cursor not first<br>
mov ah, 2<br>  int 21h<br>      mov dl, 13 ; cursor first<br>      mov ah, 2<br>  int 21h | ;
print new line<br>      mov dl, 13<br>      mov ah, 2<br>  int 21h<br>      mov dl, 10<br>      mov
ah, 2<br>  int 21h |

✓ ✓ 6 - - `lex dx, msg1`
✓ ✓ 6 + - `lea dx, msg1` Load Effective Address
7 7 - `mov dl, offset msg1` DO NOT FORGET OFFSET
8 8 - `mov ah, 9` DO NOT FORGET `09h`
9 9 - গুণ ভাগ করার আগে AH জিরো করো

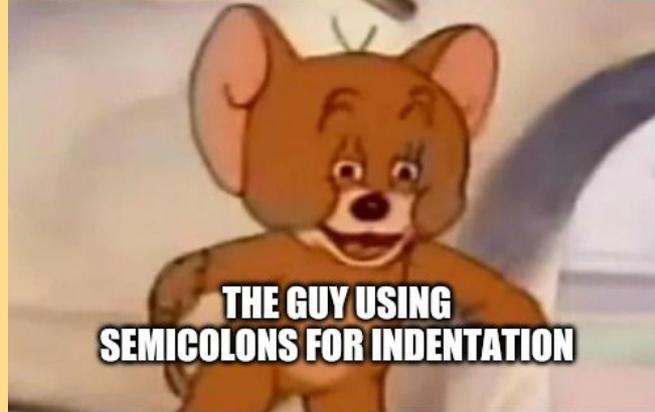
⌵
@@ -12,6 +12,8 @@
12 12      MOV BL,10
13 13      DIV BL
14 14      mov rem,ah
✓ 15 +      mov result, al
15 16      ...
16 17 - `sub al, 20h` ; user input will be saved in AL ; subtract `20h` to get lower case
✓ ✓ 17 - -
✓ 18 +
✓ 19 +
✓ 20 + ---
✓ 21 + # Perfect Codes
✓ 22 + ````asm
✓ 23 + .model small

```

```
31  
32     mov ah, 0  
33     i am a new line  
34     mov bl, 10  
35     mov cl, al  
36     ;; i have been modified  
37     mov ah, 1  
38     int 21h  
39     sub al, 48  
40     add cl, al  
41  
42     done_a:  
43     mov a, cl  
44     ; }      Kazi Rifat Morshed, 1 minute ago  
45
```



Mini Break



```
int main (int argc, char* arg[]) {  
    ;;;int i = 0  
    ;;;while (i < 10) {  
        ;;;;;;printf("%d\n", i)  
        ;;;;;;i ++  
    ;;;}  
    ;;;return 0  
}
```



File Edit View Repository Branch Help

Current repository: Learning-Assembly | Current branch: main | Fetch origin (Last fetched 20 hours ago)

Changes 7 | History | 8086ASM/_notes.md

File	Line	Diff
7 changed files		
.obsidian/workspace.json	3	3
8086ASM/add_5_and_7_print_SUM.asm.kate-swp		
8086ASM/_notes.md	4	4
8086ASM/add_2_and_3_print_5.asm		
8086ASM/add_5_and_7_print_SUM.asm	5	5
8086ASM/Loop/jump_loop.asm		
Practice_Makes_A_M.../PERFECTION_single_digit_in_single_dig_out.asm		
	6	- - `lex dx, msg1`
	6	+ - `lea dx, msg1` Load Effective Address
	7	- `mov dl, offset msg1` DO NOT FORGET OFFSET
	8	- `mov ah, 9` DO NOT FORGET `09h`
	9	- গুণ ভাগ করার আগে AH জিরো করে
		@@ -12,6 +12,8 @@
	12	MOV BL,10
	13	DIV BL
	14	mov rem,ah
	15	+ mov result, al
	15	---
	16	- `sub al, 20h` ; user input will be saved in AL ; subtract `20h` to get lower case
	17	- -
	18	+ ---
	19	+ ---
	20	+ ---
	21	+ # Perfect Codes
	22	+ ```asm
	23	+ .model small
	24	+ .stack 100h
	25	+ ---
	26	+ .data
	27	+ a db 2
	28	+ b db 3

Ctrl + Enter to commit

Commit Message 1

Tomorrow is my first lab test, I am practicing coding in the 8086 assembly.
Bla Bla

Commit to main



Commit == Snapshot

A commit is more than just a save point; it's a record of why a change happened.

The Subject Line (The "What")

- Constraint: Keep it under 50 characters.
- Style: Use the Imperative Mood (e.g., "Fix bug" instead of "Fixed bug" or "Fixes bug").
- Goal: A concise summary of the change.

The Body/Description (The "Why")

- Necessity: Use this if the "why" isn't obvious from the subject.
- Content: Explain the motivation for the change and how it differs from the previous implementation.
- Formatting: Separate from the subject with a blank line. Wrap lines at 72 characters.



Commit: Why Bother? (The Necessity)

- **Code Archaeology:** Six months from now, when you're debugging, you won't remember why you changed that specific line in the backend. The commit message tells the story.
- **Easier Code Reviews:** Your teammates can understand your thought process without having to ask you.
- **Automated Changelogs:** Professional tools can generate a list of features/fixes automatically if your messages are consistent.



quiz

What does a 'Commit' represent in Git?

- A. A snapshot of the project's changes at a specific point in time.
- B. A temporary save that is deleted when you close the editor.
- C. The process of downloading code from GitHub.
- D. A request to merge your code into another branch.



quiz

What does a 'Commit' represent in Git?

- A. A snapshot of the project's changes at a specific point in time.



Commit: Good Practices vs. Bad Practices

✗ The "Wall of Shame" (Bad)

- `git commit -m "fixed stuff"` (What stuff?)
- `git commit -m "asdfghjkl"` (Laziness)
- `git commit -m "final fix"` (It's never the final fix)
- `git commit -m "update main.cpp"` (We can see the filename; tell us what changed inside it!)

✓ The "Pro Way" (Good)

- `git commit -m "Add user authentication to login page"`
- `git commit -m "Fix: Resolve null pointer in player database"`
- `git commit -m "Refactor: Simplify tournament scoring logic"`



Commit Msg: Trick

A simple trick to see if your subject line is good: It should complete this sentence:

“If applied, this commit will... [Your Subject Line]”

- ... Add a search bar to the dashboard. (✓ Yes)
- ... Fixed the crashing bug. (✗ No)
- ... Adding more styles. (✗ No)



Commit: When to commit? ***

- **Atomic Commits:** Commit one logical change at a time. Don't fix a bug, add a feature, and refactor a folder in a single commit.
- **"Commit Often, Perfect Later":** It's better to have many small, descriptive commits than one giant "Work from the whole week" commit.



quiz

What is the recommended mood for writing the subject line of a Git commit message?

- A. Imperative Mood (e.g., 'Fix the bug')
- B. Future Tense (e.g., 'Will fix the bug')
- C. Past Tense (e.g., 'Fixed the bug')
- D. Passive Voice (e.g., 'The bug was fixed')



quiz

What is the recommended mood for writing the subject line of a Git commit message?

- A. Imperative Mood (e.g., 'Fix the bug')

The imperative mood follows the convention of 'If applied, this commit will...' which keeps history clean and consistent.



Current repository
Learning-Assembly

Current branch
main

Push origin
Last fetched 20 hours ago

Changes

History

0 changed files

No local changes

There are no uncommitted changes in this repository. Here are some friendly suggestions for what to do next.



Push commits to the origin remote

You have 1 local commit waiting to be pushed to GitHub.

Push origin

Always available in the toolbar when there are local commits waiting to be pushed or **Ctrl + P**

Open the repository in your external editor

Select your editor in [Options](#)

Open in Visual Studio Code

Repository menu or **Ctrl + Shift + A**

View the files of your repository in your File Manager

Show in your File Manager

Repository menu or **Ctrl + Shift + F**

Open the repository page on GitHub in your browser

View on GitHub

Repository menu or **Ctrl + Shift + G**

Summary (required)

Description

Person icon +

Commit to main

Committed just now
Commit Message 1

Undo

Ctrl + P to push to remote server



File Edit View Repository Branch Help

Current repository **Learning-Assembly** Current branch **main** Fetch origin Last fetched 1 minute ago

Changes History

0 changed files

DONE

No local changes

There are no uncommitted changes in this repository. Here are some friendly suggestions for what to do next.

- Open the repository in your external editor**
Select your editor in [Options](#)
Repository menu or **Ctrl + Shift + A** Open in Visual Studio Code
- View the files of your repository in your File Manager**
Repository menu or **Ctrl + Shift + F** Show in your File Manager
- Open the repository page on GitHub in your browser**
Repository menu or **Ctrl + Shift + G** View on GitHub

Summary (required)

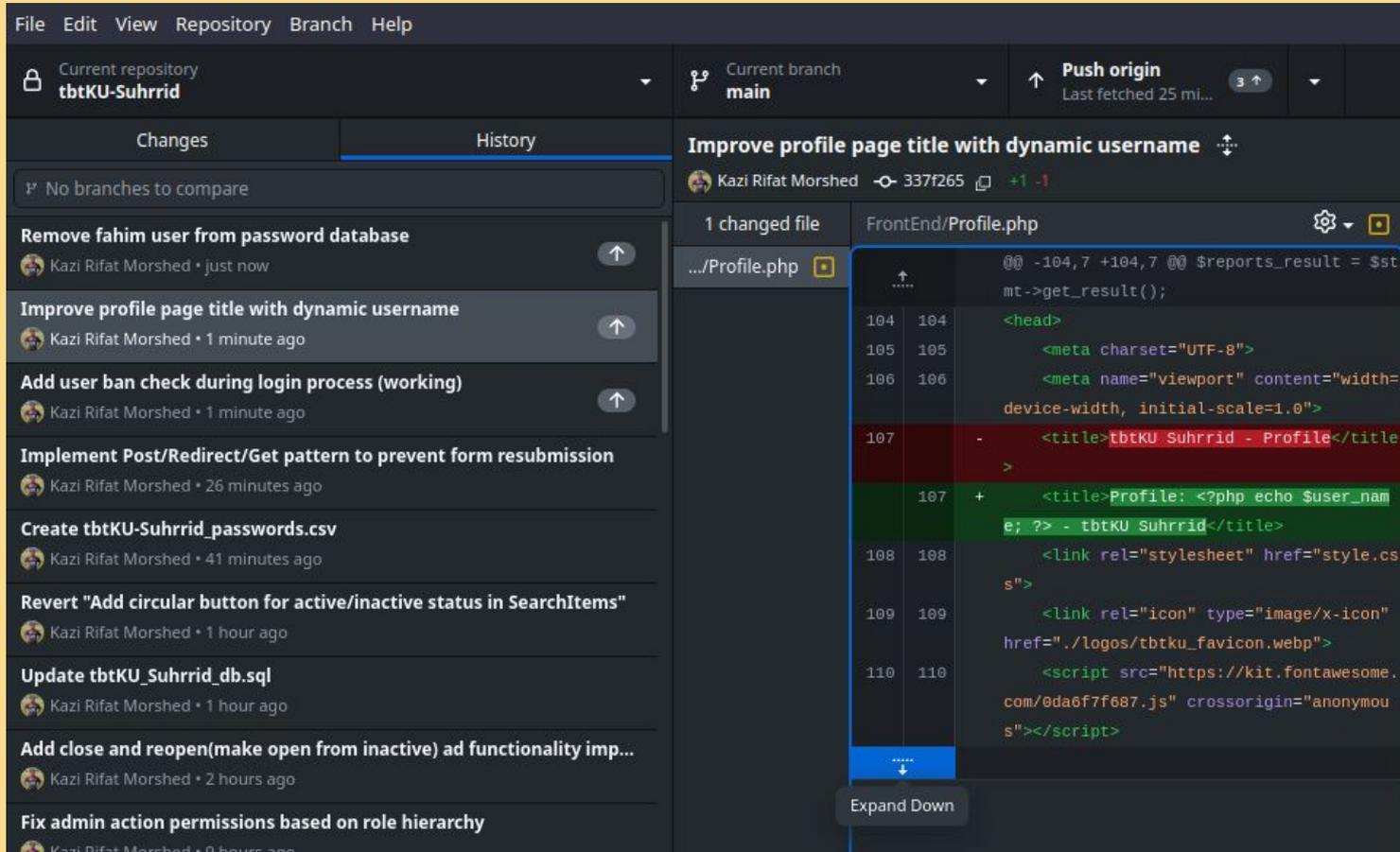
Description

⊕

Commit to main



Single work done -> Single commit (with proper commit msg)



The screenshot displays a code editor interface with a dark theme. The top menu bar includes 'File', 'Edit', 'View', 'Repository', 'Branch', and 'Help'. Below the menu, the current repository is identified as 'tbtKU-Suhrrid' and the current branch as 'main'. A 'Push origin' button is visible, indicating the last fetch was 25 minutes ago. The main area is split into two panes. The left pane shows a commit history with the following entries:

- Remove fahim user from password database (Kazi Rifat Morshed • just now)
- Improve profile page title with dynamic username** (Kazi Rifat Morshed • 1 minute ago)
- Add user ban check during login process (working) (Kazi Rifat Morshed • 1 minute ago)
- Implement Post/Redirect/Get pattern to prevent form resubmission (Kazi Rifat Morshed • 26 minutes ago)
- Create tbtKU-Suhrrid_passwords.csv (Kazi Rifat Morshed • 41 minutes ago)
- Revert "Add circular button for active/inactive status in SearchItems" (Kazi Rifat Morshed • 1 hour ago)
- Update tbtKU_Suhrrid_db.sql (Kazi Rifat Morshed • 1 hour ago)
- Add close and reopen(make open from inactive) ad functionality imp... (Kazi Rifat Morshed • 2 hours ago)
- Fix admin action permissions based on role hierarchy (Kazi Rifat Morshed • 8 hours ago)

The right pane shows a diff view for the commit titled 'Improve profile page title with dynamic username' by Kazi Rifat Morshed. It indicates that 1 file, 'FrontEnd/Profile.php', has been changed. The diff shows the following changes to the HTML head section:

```
104 104 <head>
105 105 <meta charset="UTF-8">
106 106 <meta name="viewport" content="width=device-width, initial-scale=1.0">
107 - <title>tbtKU Suhrrid - Profile</title>
107 + <title>Profile: <?php echo $user_name; ?> - tbtKU Suhrrid</title>
108 108 <link rel="stylesheet" href="style.css">
109 109 <link rel="icon" type="image/x-icon" href="/logos/tbtku_favicon.webp">
110 110 <script src="https://kit.fontawesome.com/0da6f7f687.js" crossorigin="anonymous"></script>
```

Quiz

Which of the following best describes the difference between Git and GitHub?

- A. Git is a version control system tool, while GitHub is a cloud-based hosting service for Git repositories.
- B. There is no difference; they are two names for the same software.
- C. GitHub is the command-line tool, and Git is the website.
- D. Git is only for Windows, while GitHub is only for Linux.



Quiz

Which of the following best describes the difference between Git and GitHub?

- A. Git is a version control system tool, while GitHub is a cloud-based hosting service for Git repositories.



BREAK TIME 🤔🤔🤔



Using
Google Drive
as free
cloud storage

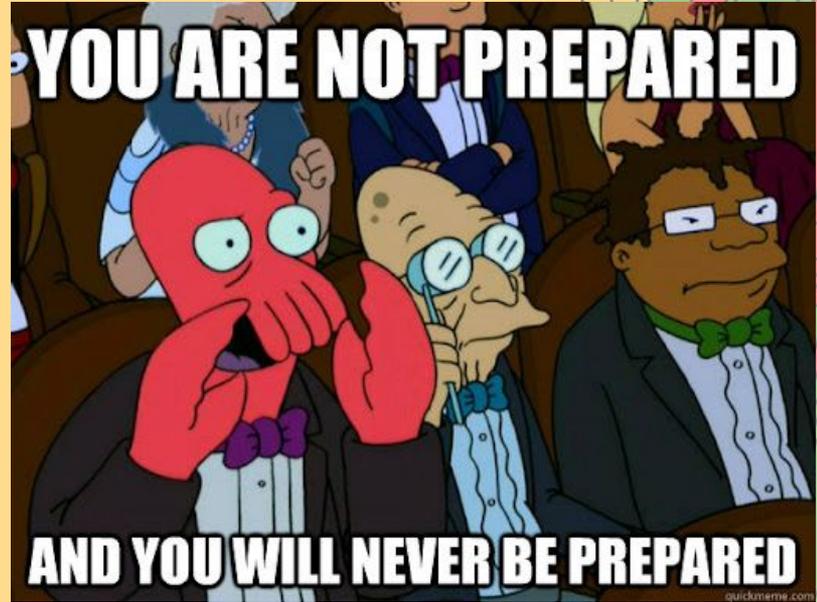


Using
Github repos
as free
cloud storage



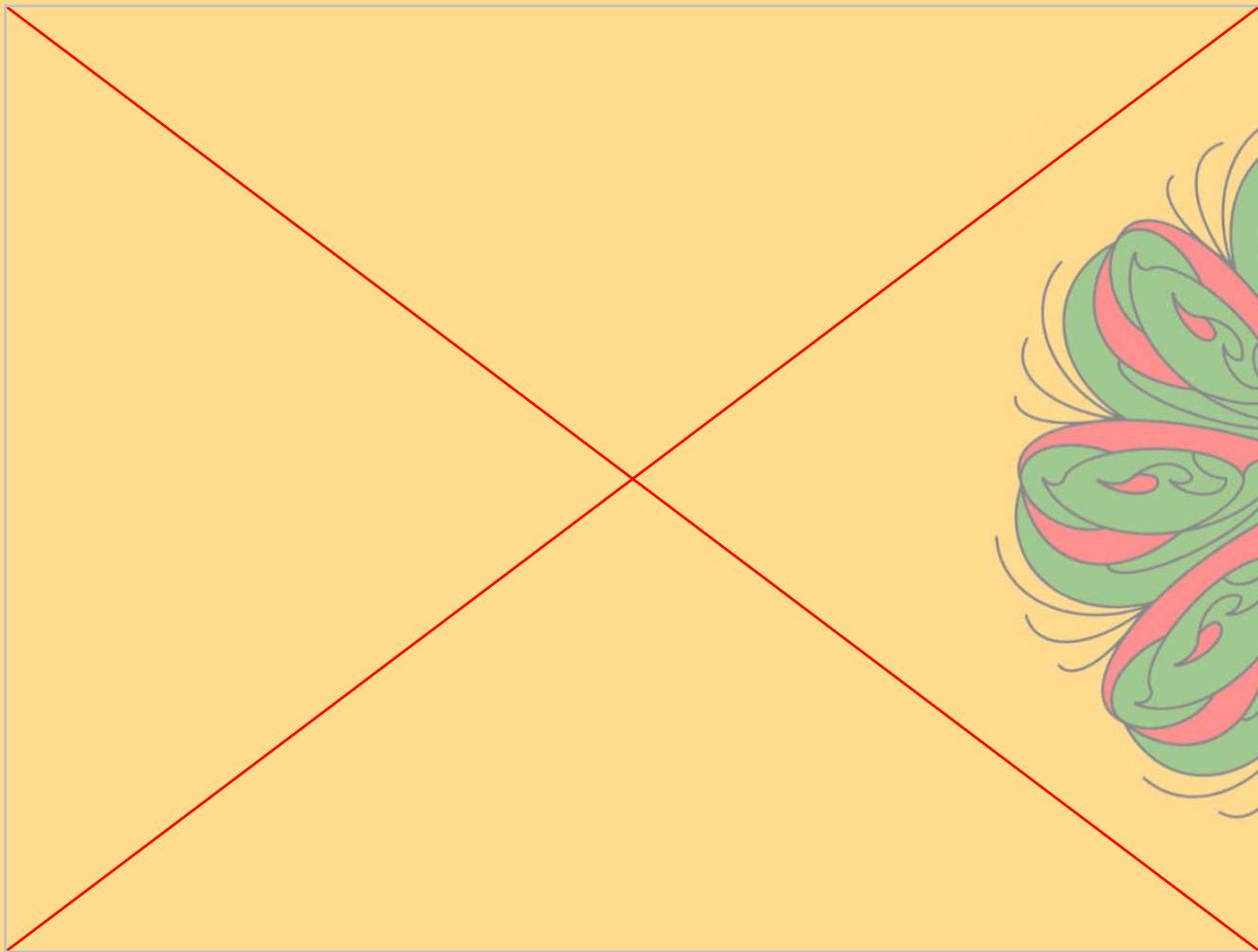
Practice

1. Open a GitHub(GH) repo using GH web
2. Clone the repo using GH desktop
3. Add some code, Commit, Push
4. Check changes in GH web
5. Again Add some code, Commit, Push (x 2~4)
6. Check git commits from GH web
7. Check the repo with anonymous window, Make the repo public, check from public link and the git commits
8. Edit and commit with GH web (x 2~3)
9. Pull from GH Desktop and see changes (changes in file manager and commit history)



Unless you practice

inzoì...



Practice

11. gitignore

1. create unusable file and folders
2. using creating .gitignore
3. using GH desktop

Tip:

****/output/**

****/**: This tells Git to look in the root directory and *all* subdirectories.

output/: This matches any directory named "output". The trailing slash ensures that only folders (and their contents) are ignored, while a file named **output** would still be tracked.



BREAK TIME 🤔🤔🤔

**Me, unable to find the project
I probably deleted by mistake**



imgflip.com



Practice

10. Delete & Commit:

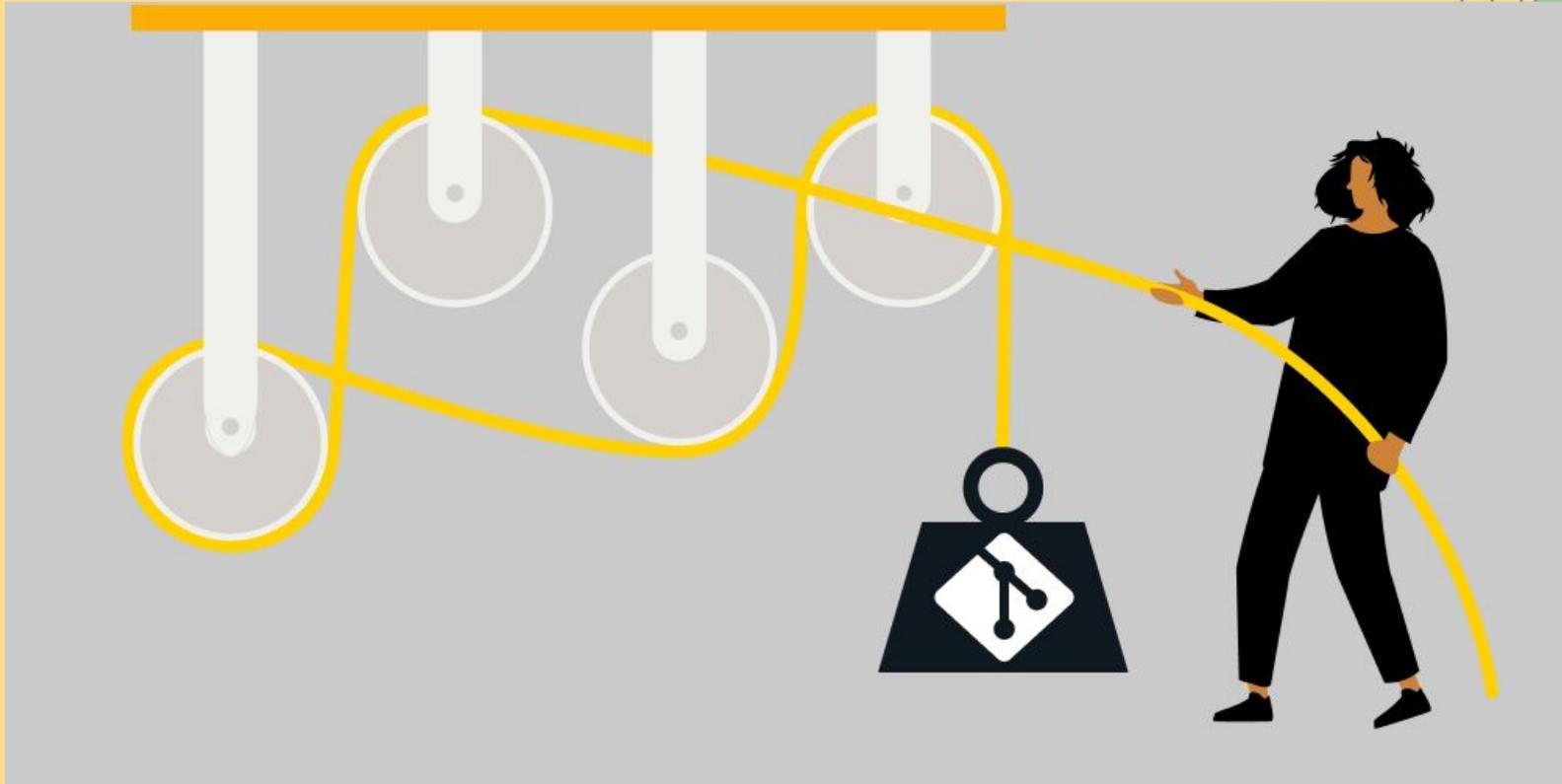
1. Delete some files and commit
2. Rename some files and commit
3. Add some binary files, rename and commit

12. Delete and Re-add

1. Delete repo from local machine
2. Clone using ``git clone``
(why, you will see this lot of times in GH)
3. Download ZIP from GH web and check its contents
(Do not delete git folders)

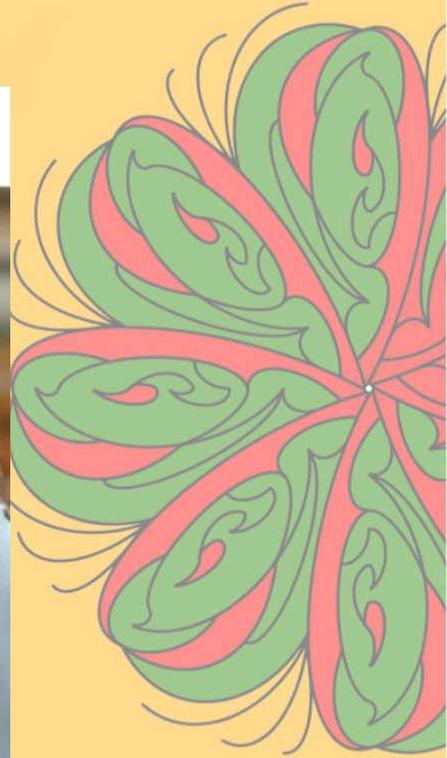


Life is complicated 🙄🙄🙄



GitHub, a place of AMAZING softwares...

GitHub devs designing their website



Let's visit some repos: <https://awesome-selfhosted.net>

awesome-selfhosted / awesome-selfhosted

Code Issues Pull requests Actions Security Insights

awesome-selfhosted Public

Watch 2724 Fork 10.2k Starred 216k

master 1 Branch 1 Tag

Go to file Add file Code

awesome-selfhosted-bot [bot] build markdown from awesome-selfhosted-data 59b... 12e8bf6 · 20 hours ago 6,706 Commits

- .github move issue tracking/contribution workflows/project man... 2 years ago
- _static don't hotlink awesome badge, use local copy 2 years ago
- LICENSE add CreativeCommons CC-BY-SA 3.0 license 10 years ago
- README.md [bot] build markdown from awesome-selfhosted-data 59... 20 hours ago
- non-free.md [bot] build markdown from awesome-selfhosted-data 38... last week

README License

Awesome-Selfhosted

awesome dead links failing unmaintained projects failing goal progress 423%

Self-hosting is the practice of hosting and managing applications on your own server(s) instead of consuming from [SaaS](#) providers.

This is a list of [Free Software network services](#) and [web applications](#) which can be hosted on your own server(s). Non-Free software is listed on the [Non-Free](#) page.

[HTML version](#) (recommended), [Markdown version](#) (legacy).

See [Contributing](#).

About

A list of Free Software network services and web applications which can be hosted on your own servers

[awesome-selfhosted.net/](#)

awesome cloud privacy selfhosted hosting self-hosted free-software awesome-list

Readme View license Activity Custom properties 216k stars 2.7k watching 10.2k forks Report repository

Releases 1

1.0.0 Latest on Aug 22, 2023

Packages

No packages published

101

Where is the download link ?

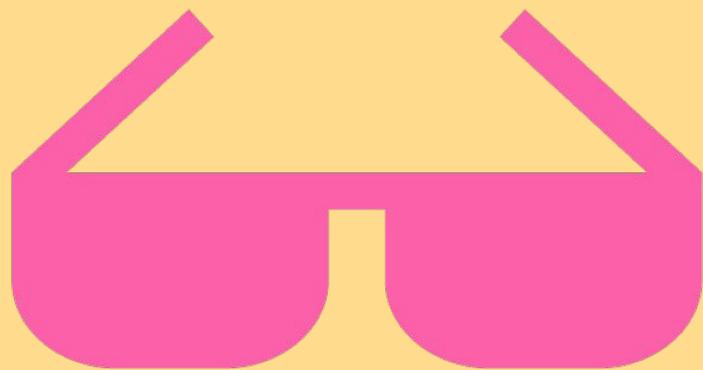
This screenshot shows the main page of the 'youtube-dl-gui' repository. At the top, there is a search bar and navigation icons. Below that, statistics for 'Watch' (28), 'Fork' (73), and 'Starred' (1.8k) are displayed. The 'Code' button is highlighted in green. The 'About' section describes it as a cross-platform GUI for youtube-dl. A large white arrow points to the 'Releases' section, which shows version 2.5.4 as the latest release from October 9, 2023. Other sections like 'Packages' and 'Deployments' are also visible.

This screenshot shows the 'Releases' page for version 2.5.4. It includes a 'Compare' button, the release date (Oct 9, 2023), and the commit hash (863da6a). The 'What's Changed' section lists fixes and additions. The 'New Contributors' section mentions @AnessZurba. The 'Full Changelog' link is provided. The 'Contributors' section lists @AnessZurba and @Cl00e9ment. The 'Assets' section contains a table of download links for various operating systems and formats.

Asset	Size	Created
latest-linux.yml	394 Bytes	Oct 8, 2023
latest-mac.yml	379 Bytes	Oct 8, 2023
latest.yml	370 Bytes	Oct 8, 2023
Open-Video-Downloader-2.5.4-universal.dmg	161 MB	Oct 8, 2023
Open-Video-Downloader-2.5.4-universal.dmg.blockmap	173 KB	Oct 8, 2023
Open-Video-Downloader-2.5.4.AppImage	98.7 MB	Oct 8, 2023
Open-Video-Downloader-2.5.4.exe	64.9 MB	Oct 8, 2023
Open-Video-Downloader-Setup-2.5.4.exe	79.5 MB	Oct 8, 2023
Open-Video-Downloader-Setup-2.5.4.exe.blockmap	86.5 KB	Oct 8, 2023
Source code (zip)		Oct 8, 2023
Source code (tar.gz)		Oct 8, 2023

Awesome

- <https://github.com/sindresorhus/awesome>
- <https://github.com/DopplerHQ/awesome-interview-questions>



awesome



/fun



BREAK TIME 🤔🤔🤔



Github Issues



Fix it



**Put an
issue on
github and leave**



Github Issues

The screenshot shows a web browser window displaying a GitHub issue page. The browser's address bar shows the URL `https://github.com/KaziRifatMorshed/tbtKU-Suhrriid/issues/16`. The page title is "ad renewal feature #16". The issue is currently "Open" and was created by KaziRifatMorshed on April 5. The description of the issue is: "In the profile, within the list of my ad, there will be a renew button, along with showing the renewal status". The issue is labeled with "enhancement" and "remaining work". It is assigned to RimonIslam1. The right sidebar shows various settings for the issue, including Assignees, Labels, Projects, Milestone, Relationships, and Development. At the bottom, there is a comment box with the text "implemented in commit 1317099b7e56b0cde7068044be2f78d5c0de6593".

Workspaces

Flawle... 3 abhis... 10 github... 5 yongsen/r... Mk লিলাঙ্কে বি... An Int... 4 Repository... localh... 2 Create you... Packaging... pyqt6 label... Qt Label set... Qt for Python ad renewal fe

Search Google

Learn Science & Sim... Research Socials Imported boo... linux Books Anime Torrent Opps!! Piracy Tools Software Math and Gra... Zyphra/Zonos... onlice resources Study Speed Dial 3D Magazine Islam Photography CSE & Prog

KaziRifatMorshed / tbtKU-Suhrriid

Type to search

Code Issues 16 Pull requests Actions Projects Wiki Security Insights Settings

ad renewal feature #16

Edit New issue

Open

KaziRifatMorshed opened on Apr 5

In the profile, within the list of my ad, there will be a renew button, along with showing the renewal status

Create sub-issue

KaziRifatMorshed added enhancement remaining work on Apr 5

KaziRifatMorshed assigned RimonIslam1 7 hours ago

Add a comment

Write Preview

H B I `< > @ ↩ ↪`

implemented in commit 1317099b7e56b0cde7068044be2f78d5c0de6593

Assignees

RimonIslam1

Labels

enhancement remaining work

Projects

No projects

Milestone

No milestone

Relationships

None yet

Development

Code with Copilot Agent Mode

Create a branch for this issue or link a pull request.

Paste, drop, or click to add files

Close with comment

Comment

Github Issues

Workspaces | R Fla... 3 | abh... 10 | gith... 5 | yongsen... | Mk निताके... | An I... 4 | Reposit... | loca... 2 | Create y... | Packagi... | pyqt6 la... | QLabel s... | Qt for P... | ad renewal | My Drive... | Introduc... +

https://github.com/KaziRifatMorshed/tbtKU-Suhrriid/issues/16 | Search Google

KaziRifatMorshed / tbtKU-Suhrriid

Type to search

Code | **Issues 15** | Pull requests | Actions | Projects | Wiki | Security | Insights | Settings

ad renewal feature #16

Edit | **New issue**

Closed



KaziRifatMorshed opened on Apr 5

In the profile, within the list of my ad, there will be a renew button, along with showing the renewal status

Create sub-issue

KaziRifatMorshed added **enhancement** **remaining work** on Apr 5

KaziRifatMorshed assigned [RimonIslam1](#) 8 hours ago



KaziRifatMorshed now

Author

implemented in commit [1317099](#)



KaziRifatMorshed closed this as **completed** now



Add a comment

Assignees

[RimonIslam1](#)

Labels

enhancement **remaining work**

Projects

No projects

Milestone

No milestone

Relationships

None yet

Development

Code with Copilot Agent Mode

Create a branch for this issue or link a pull request.

BREAK TIME 🤔🤔🤔

Juniors/Oldscool developers:

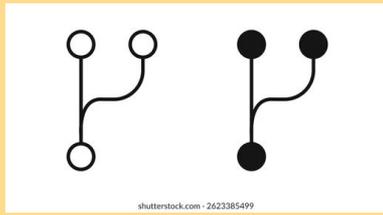


Branch



R.O.K 🏰 - Two developers coding in the same branch ([Source: X](#))

Branch



ChrisTitusTech / winutil

<> Code Issues 174 Pull requests 28 Discussions Actions Projects Security

winutil Public

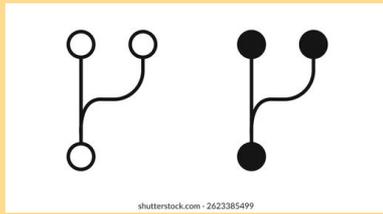
main 10 Branches 30 Tags

ChrisTitusTech Deploying to main from @ 59d968e 🚀

- .github Remove Old C
- config Refactor proc
- docs Update dev d
- functions correct uninst



Branch



GitHub Desktop

File Edit View Repository Branch Help

Current repository **tbtku-website**

Current branch **main**

Fetch origin
Last fetched 14 hours ago

Changes History Branches Pull requests

0 changed files

Filter New branch

Default branch

- ✓ main 15 hours ago

Recent branches

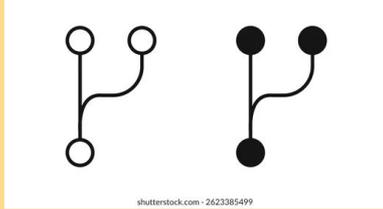
- font-issue-fixing yesterday

Monday, March 16, 2026 at 11:31 AM

No local changes
There are no uncommitted changes in the repository for what to do next.

Open the repository in your external editor
Select your editor in [Options](#)
Repository menu or **Ctrl + Shift + A**

Branch



winutil Public

main 10 Branches 30 Tags

Switch branches/tags

Find a branch...

Branches Tags

- main (default)
- Runspace-Changes
- admin-elevation
- dependabot/pip/dot-github/jinja2-3.1.6
- dependabot/pip/dot-github/requests-2....
- gh-pages
- revert-2665-assetMGMT
- revert-2701-improve-xaml-compile
- revert-3296-factoroutselection
- winget-fixes

View all branches

.gitattributes

.gitignore



ghostty Public

main 5 Branches 7 Tags

Switch branches/tags

Find a branch...

Branches Tags

- main (default)
- 1.1.x
- opengl-test
- push-qouskwyzlkmy
- vm-tests

View all branches

- nix
- pkg



quiz

What is a 'Branch' used for in a collaborative project?

- A. To work on a new feature or fix without affecting the main codebase.
- B. To speed up the upload process to GitHub.
- C. To store old versions of the code for archiving.
- D. To password-protect certain files in the project.



quiz

What is a 'Branch' used for in a collaborative project?

- A. To work on a new feature or fix without affecting the main codebase.

Branching allows multiple streams of development to happen in parallel without interfering with each other.



LONG BREAK TIME 🤔🤔🤔

**"It's not a bug, it's a feature" --
Ladder logic looks like spaghetti**

**"Safety first!" -- E-stop button
opens garage door**

**"Of course I commented the code" -
- Last comment from 1997**

**"I can fix that in 5 minutes" --
Still debugging after 8 hours**

**"It's optimized" -- CPU
usage at 99.9%**

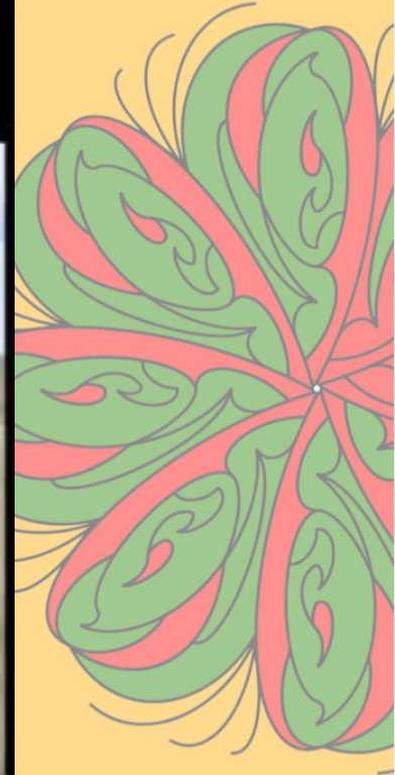
**"It worked on my
simulator" -- Plant catches
fire on startup**

**"The HMI is user-friendly"
-- Operators need a Ph.D.
to use it**

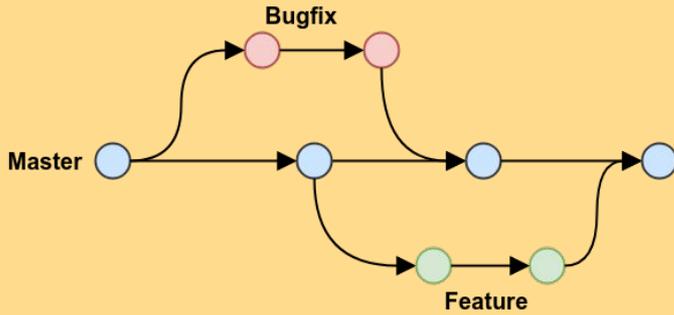


**"I don't need
version control" --
Has 50 copies of
'final_v2_FINAL.plc'**

GIT MERGE



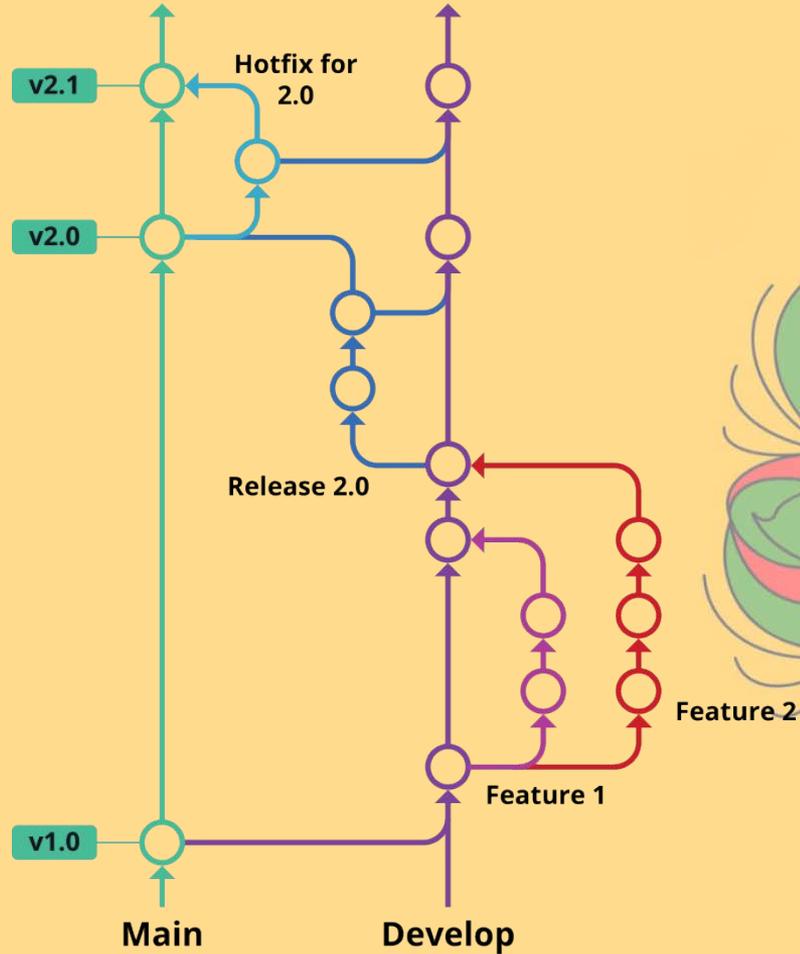
Branch



Reminder:

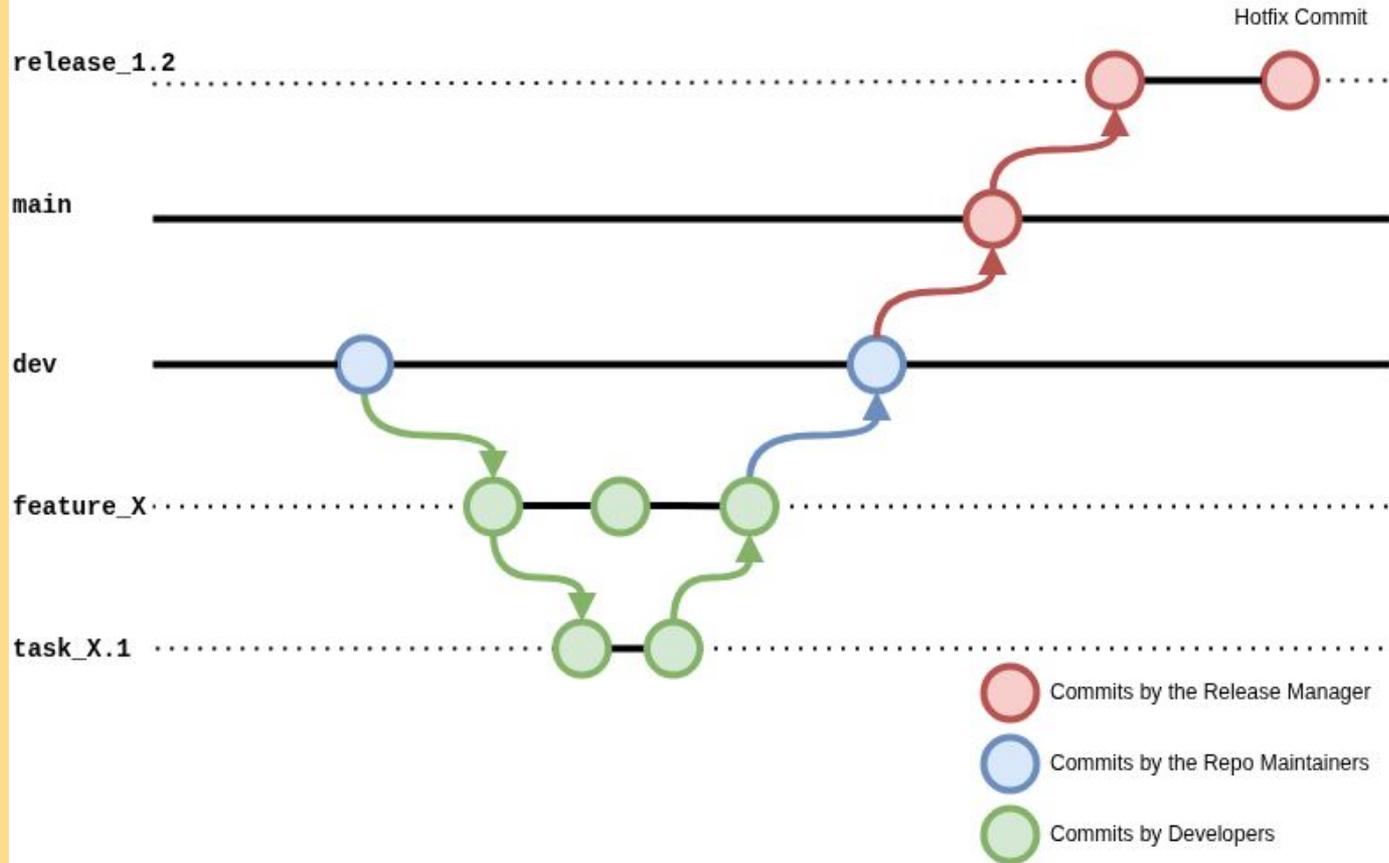
Commit মার্জ হবে (ছোট ছোট চেঞ্জ গুলো মার্জ হবে)

A ব্রাঞ্চে করা পরিবর্তন গুলো এবার B ব্রাঞ্চে চলে আসবে



Git Branching Diagram

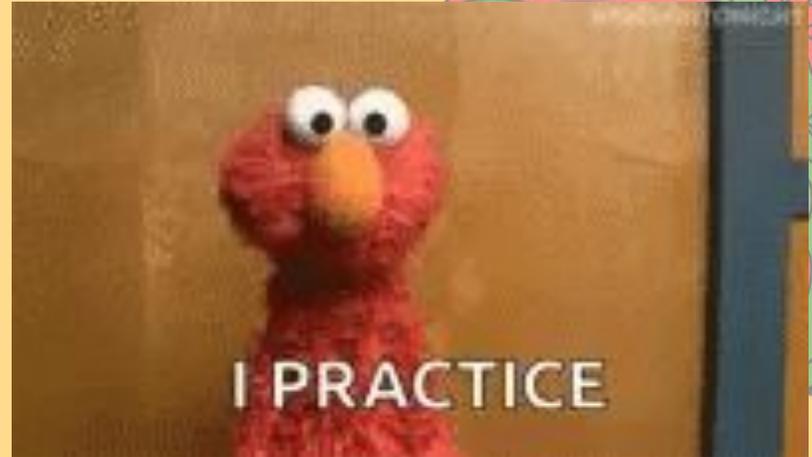
Branch



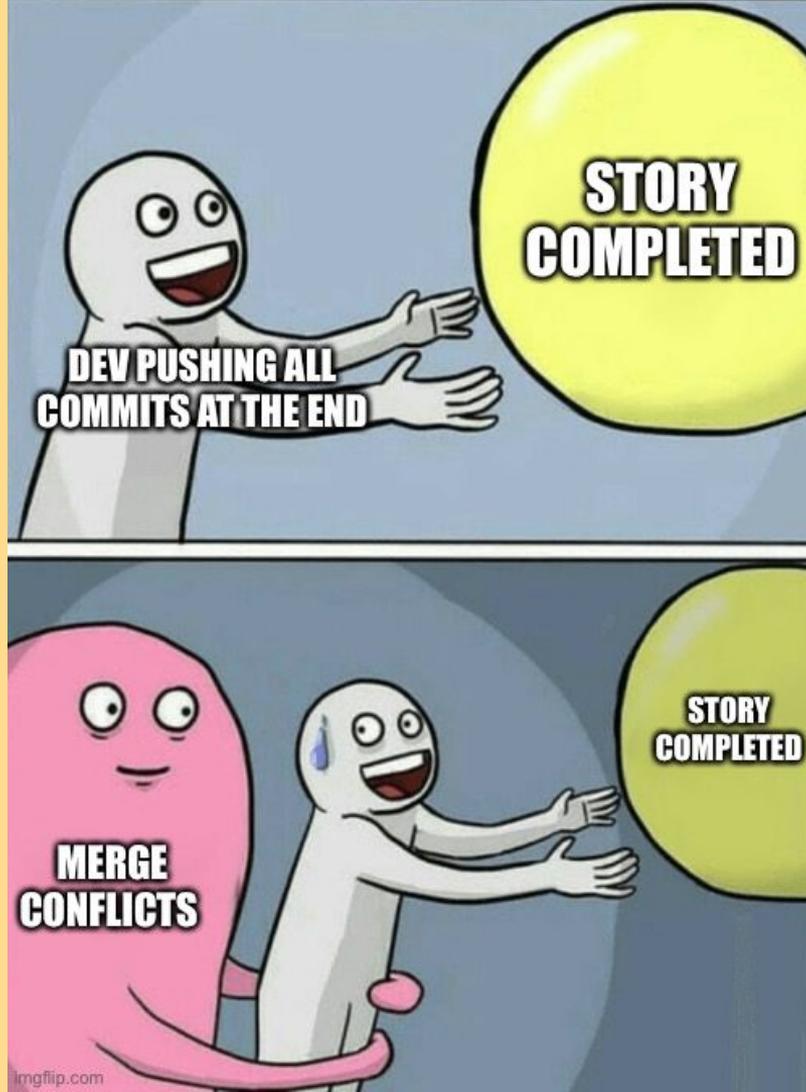
Practice

14. Branching

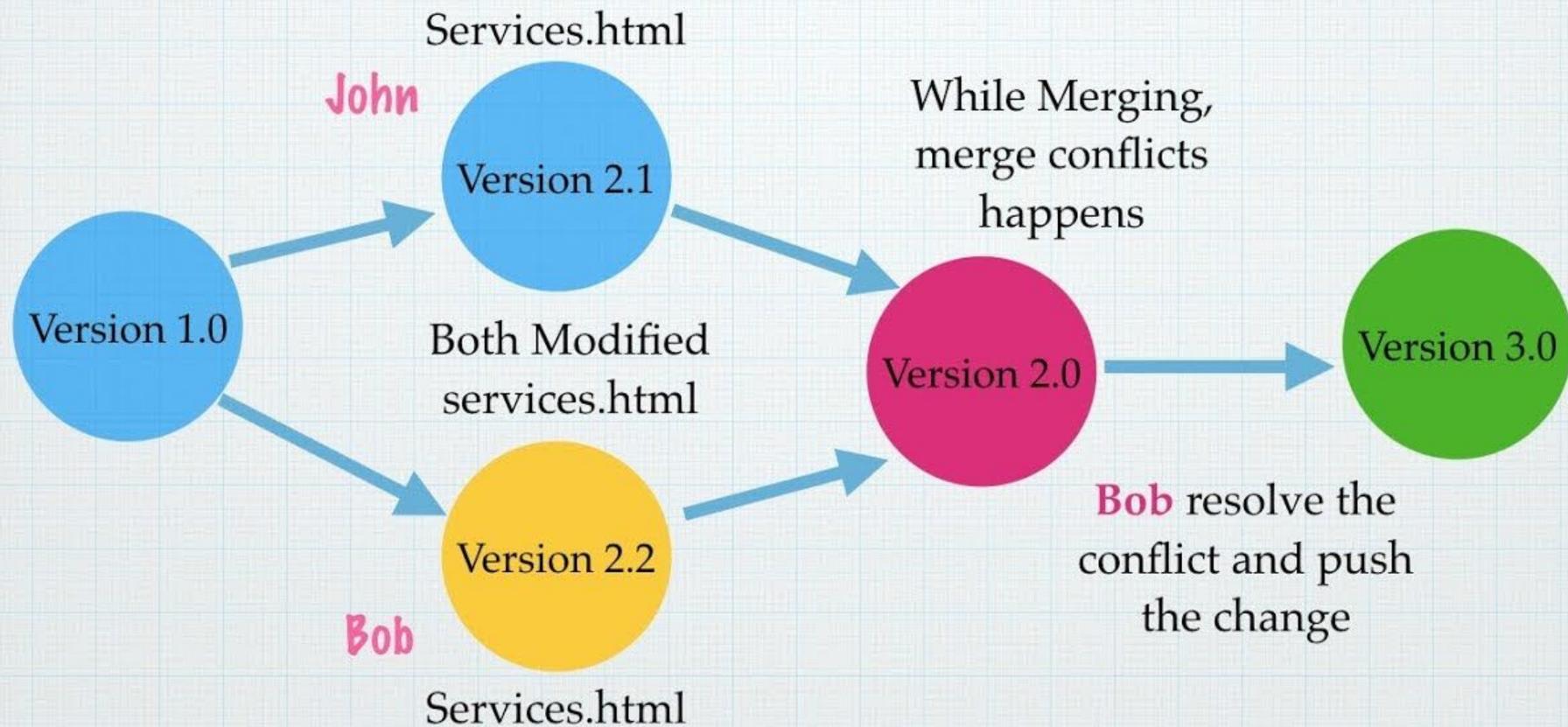
1. Create Branch (locally) and check GH web
2. Push branch and check GH web again
3. Commit in new branch,
Push branch and check GH web again
4. Switch branch and see changes in File Manager
5. Switch branch and see changes in GH web
6. Commit from PC-2 and see changes in GH web
7. Pull from PC-1 and see commit history in GH desktop

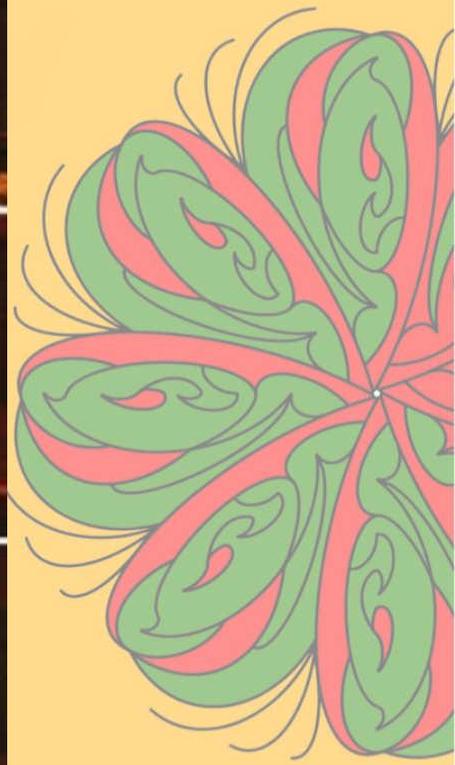


Conflict!



Work with merge conflict in Git







Singleton server implemented #22

Resolving conflicts between SingletonServerI... and CodeEditor_Imple... and committing changes → SingletonServerI...

2 conflicting files

SmartXm-CSEKU.pro.user

src/SmartXm-CSEKU/SmartXm-CSEKU.pro.user



ide.cpp

src/SmartXm-CSEKU/ide.cpp

src/SmartXm-CSEKU/ide.cpp

1 conflict

Prev ^

Next v

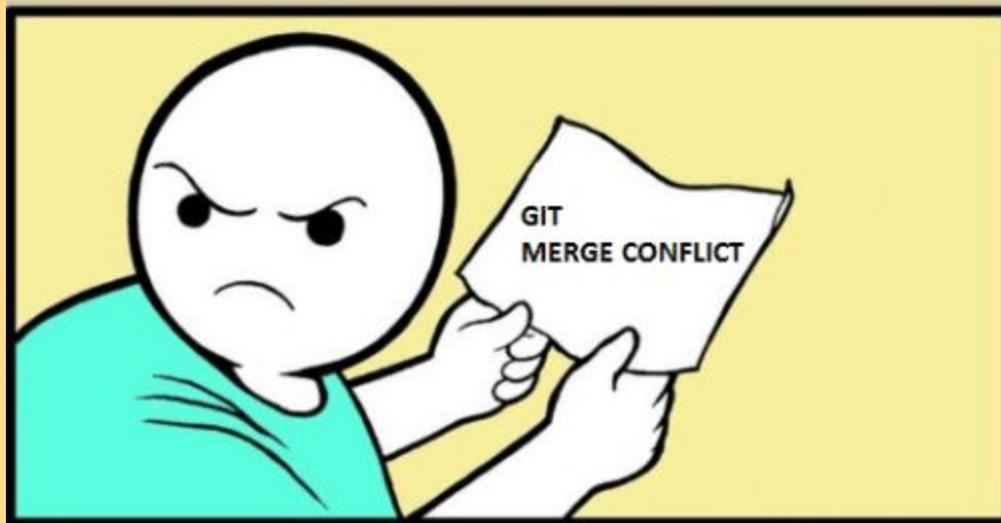


Mark as resolved

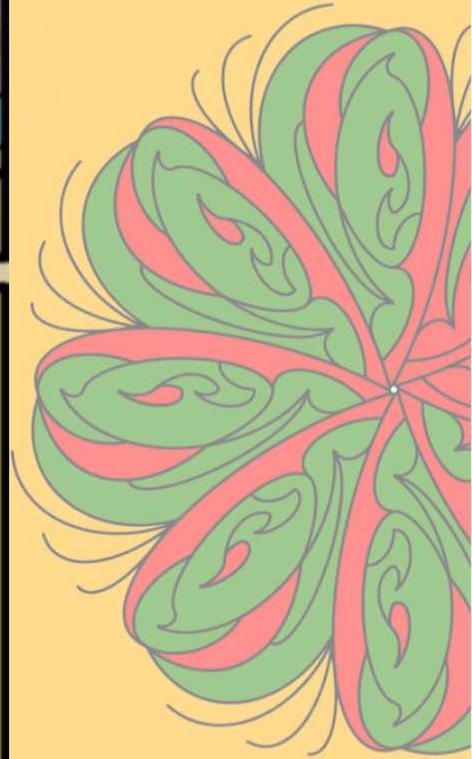
```

18 #include <QApplication>
19 #include <QTextStream>
20 #include <QProcess>
21 #include <QFontMetricsF>
22 #include <QWheelEvent>
23 <<<<<< SingletonServerImplemented
24 // #include <Qsci/qsciscintilla.h>
25 // #include <Qsci/qscilexercpp.h>
26 // #include <Qsci/qscilexerpython.h>
27 =====
28 #include <Qsci/qscilexercpp.h>
29 #include <Qsci/qscilexerpython.h>
30 #include <QFont>
31 >>>>>> CodeEditor_Implementation
32 #include <string>
33 #include <QString>
34 #include <iostream>
35
36 IDE* IDE::ideInstance = nullptr;

```



gilt



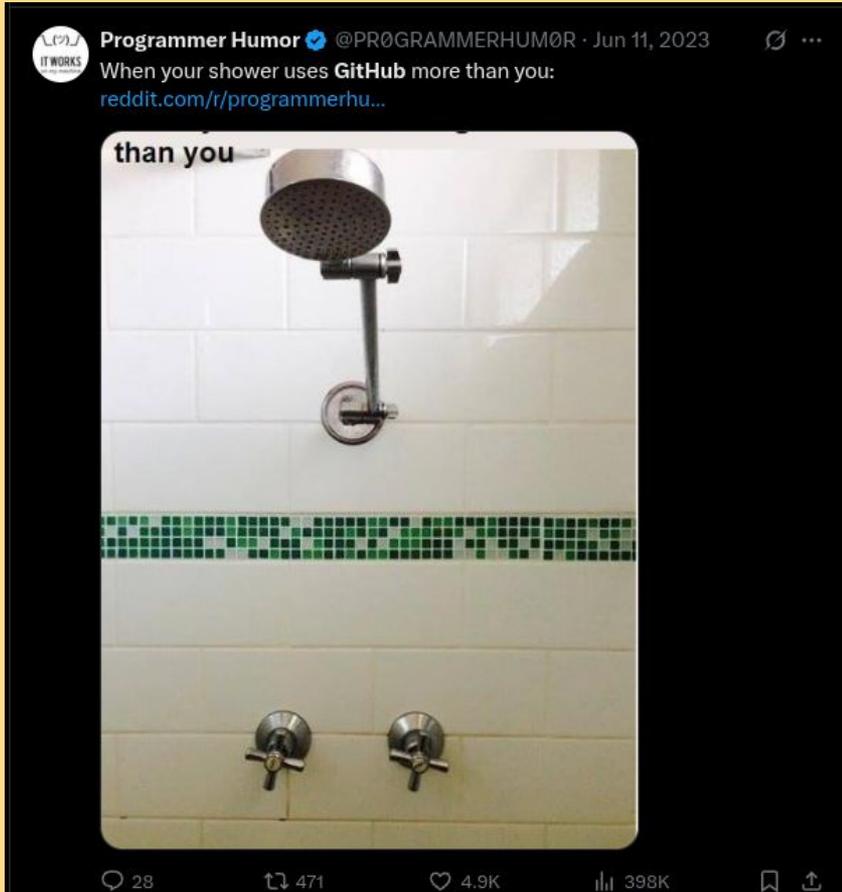
Contribute

<https://github.com/firstcontributions/first-contributions> (HW)

Finally... The GitHub bathroom



Your GitHub Activity



Your GitHub Activity



Linus Torvalds

torvalds

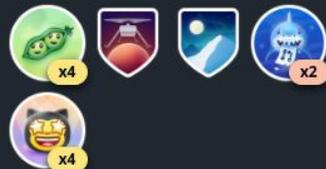
Unfollow

238k followers · 0 following

Linux Foundation

Portland, OR

Achievements



Pinned

Not involved with any fishy crypto f...

```
1 I'm told that there are people claiming to "tokenize"
2
3 I just want to clarify that that is not the case. I do
4
5 If you believe crypto-currencies are anything but a scam
```

1590A Public

Random odd guitar pedal design in kicad

OpenSCAD ☆ 335 🍴 12

subsurface/libdc Public

Subsurface version of libdivecomputer, upstream at
github.com/libdivecomputer/libdivecomputer

C ☆ 95 🍴 93

linux Public

Linux kernel source tree

C ☆ 196k 🍴 56.5k

subsurface/subsurface Public

This is the official upstream of the Subsurface dive log program

C++ ☆ 2.8k 🍴 524

uemacs Public

Random version of microemacs with my private modifications

C ☆ 1.5k 🍴 253

3,042 contributions in the last year



2025

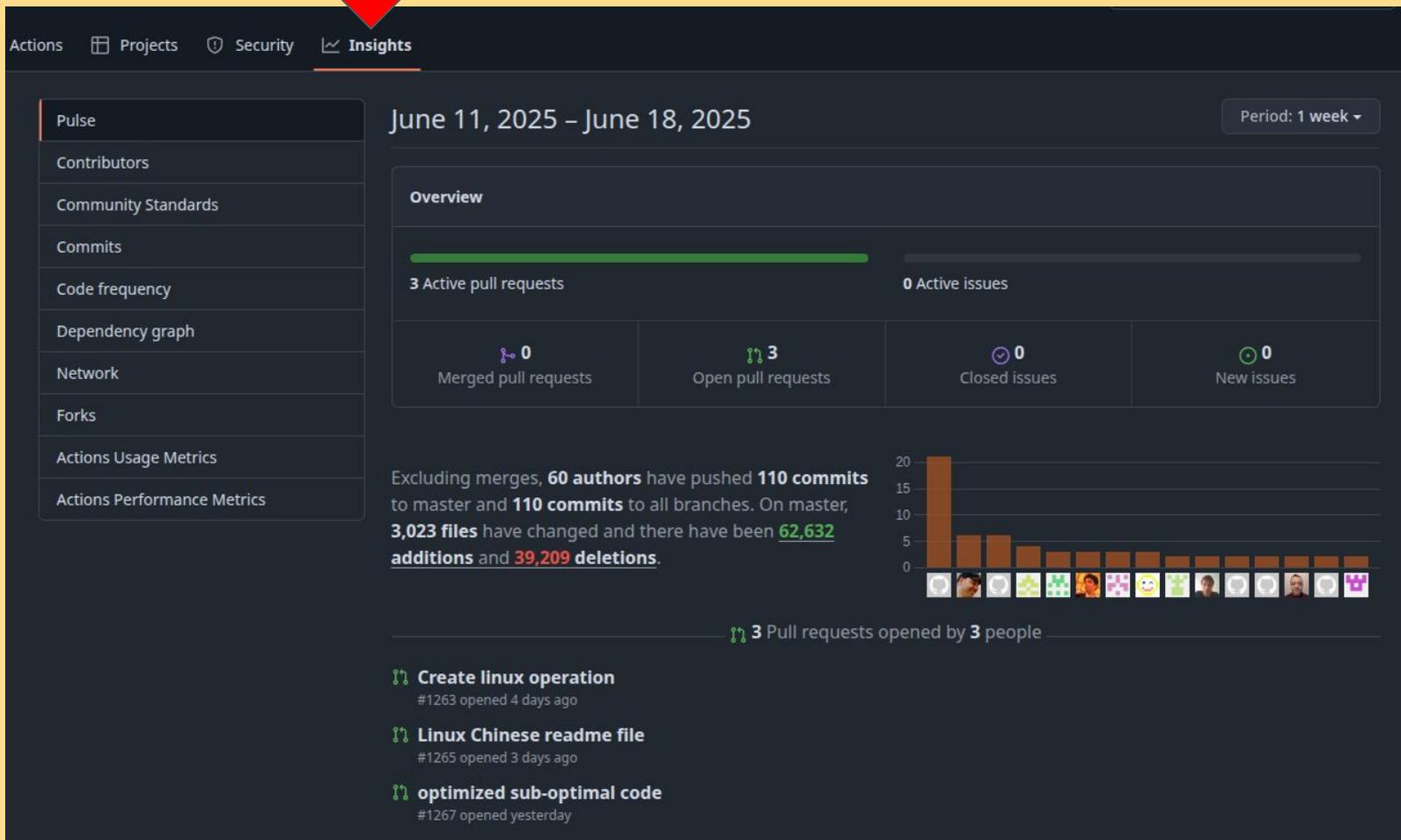
2024

2023

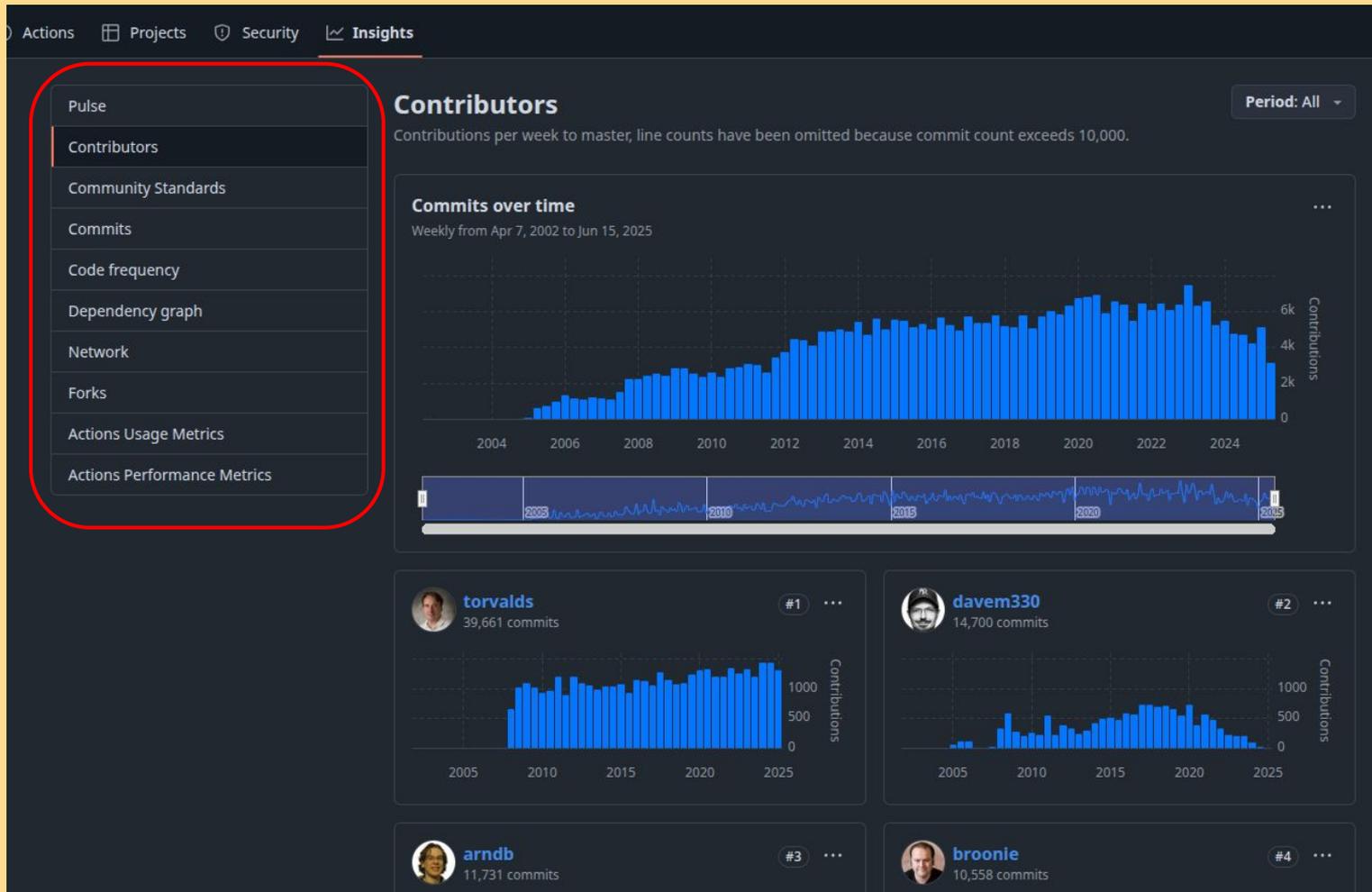
2022

2021

Repo GitHub Activity



Repo GitHub Activity



- Pulse
- Contributors**
- Community
- Traffic
- Commits
- Code frequency
- Dependency graph
- Network
- Forks
- Actions Usage Metrics
- Actions Performance Metrics

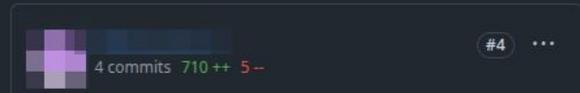
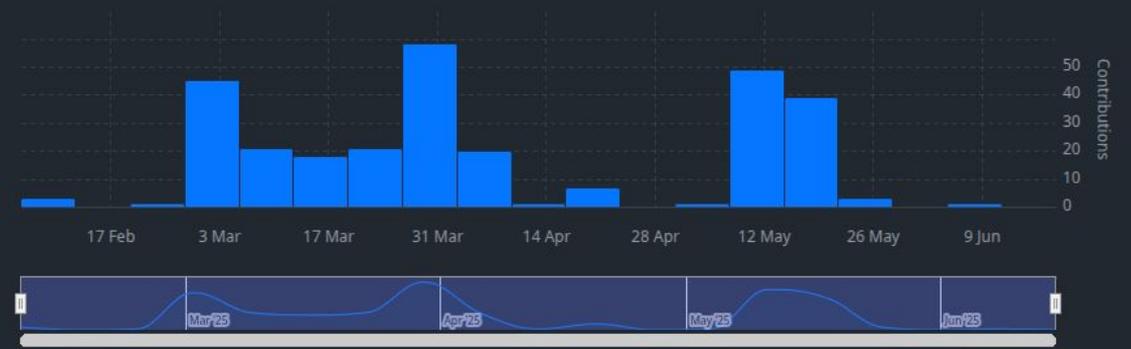
Contributors

Period: All Contributions: Commits

Contributions per week to main, excluding merge commits

Commits over time

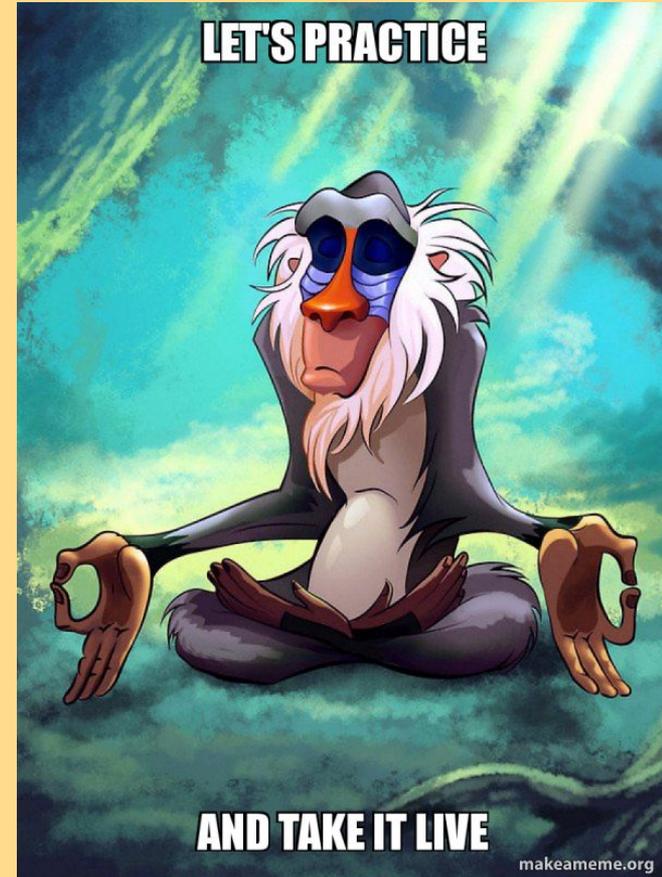
Weekly from Feb 9, 2025 to Jun 15, 2025



Practice

13. Collaboration:

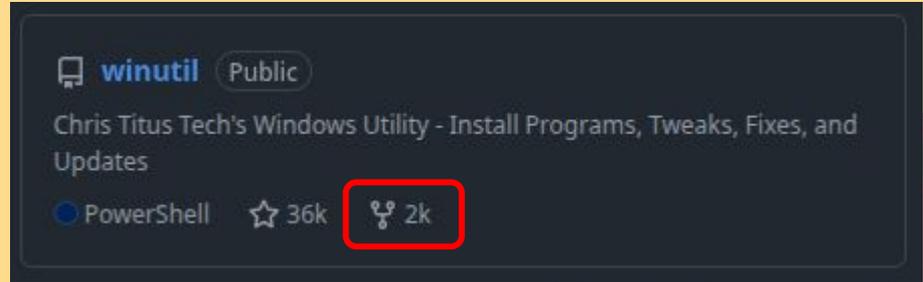
1. Add a collaborator
2. Accept invitation
3. Commit from PC-2 and Push
4. Check commits from PC-1 GH web
5. pull from PC-1 GH desktop
6. Commit from PC-1 and push
7. Pull from PC-2
8. See collaboration stats



Fork

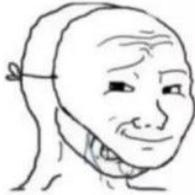


Forking creates a **personal copy** of a repo where you have full control, allowing you to make changes and later propose them via a Pull Request (to the main copy).



Fork

DESIGNERS



Look, we have similar ideas.



No! You stole my idea.

PROGRAMMERS



Man, I stole your code.



It's not my code.

Github Users



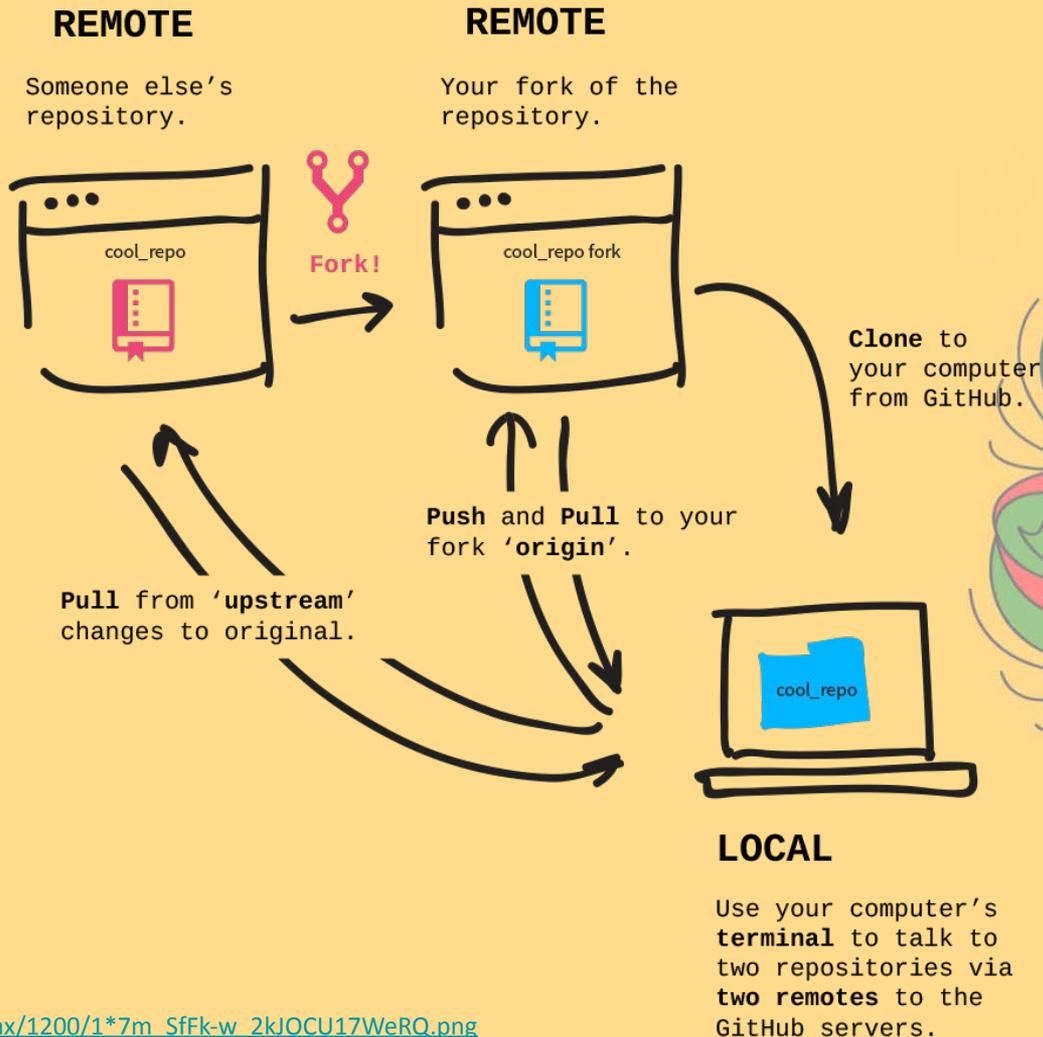
Man, I stole your code.



Thanks for the fork



Fork vs Clone



The "Fork & PR" Workflow: How OSS development works

- **Fork:** Copying someone else's repository to your account.
- **Clone:** Downloading a repository to your local machine.
- **Pull Request (PR):** Proposing your changes to the original project owner.
Pull Req from my repo to original owner's repo.
- A way to propose changes from your branch to be merged into another branch.
- PRs are the central hub for collaboration on GitHub, allowing for discussion, review, and automated testing.





Git

It is a distributed version-control system for tracking changes in source code during software development.

- It is a software.
- It is a high-quality version control system.
- It is installed locally on a system.
- It is a command-line tool.
- It focused on version control and code sharing.
- It is maintained by Linux.
- It has no user management feature.
- It is a version control system to manage source code history.

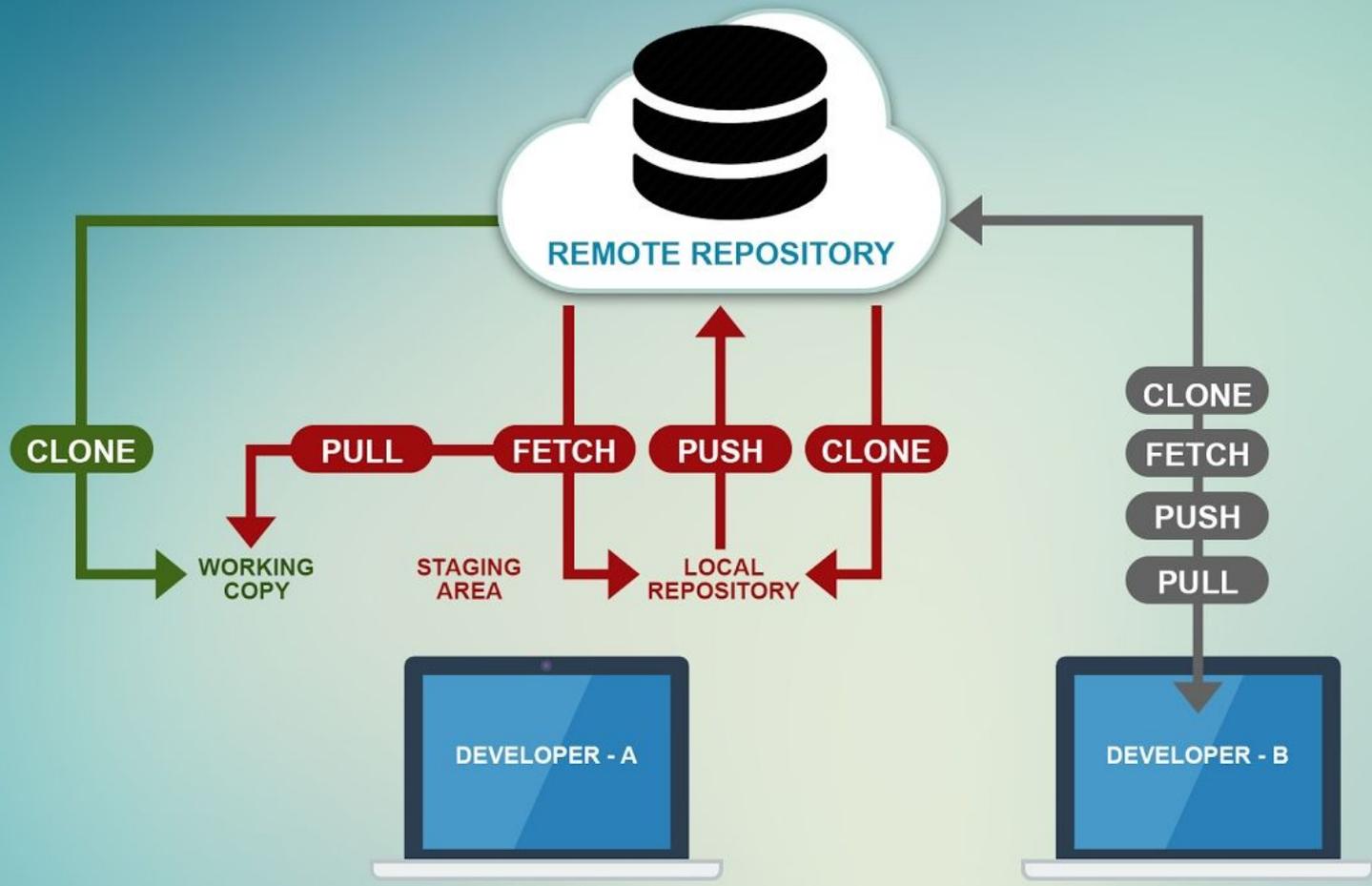
VS



GitHub

It provides hosting for software development and version control using Git.

- It is a service.
- It is a cloud-based hosting service.
- It is hosted in the cloud.
- It comes with an easy-to-use intuitive UI.
- It focused on centralized source code hosting.
- It is maintained by Microsoft.
- It has a built-in user management feature.
- It is a hosting service for git repositories.



Last Quiz

GitHub Desktop

File Edit View Repository Branch Help

Current repository: **tbtKU-Suhridd** | Current branch: **main** | Fetch origin (Last fetched just now)

Changes

- No branches to compare
- Fix condition in ad details page access check** (Kazi Rifat Morshed • 18 hours ago)
- Allow ad owners to edit/delete their ads and ShowAd header updated** (Kazi Rifat Morshed • 18 hours ago)
- Implement user banning functionality** (Kazi Rifat Morshed • 18 hours ago)
- User Warning by Admin Moderator implemented successfully** (Kazi Rifat Morshed • 19 hours ago)
- Improve profile redirection logic based on session state, preventing** (Kazi Rifat Morshed • 19 hours ago)
- (incomplete)Add user warning and banning JavaScript functionality** (Kazi Rifat Morshed • 19 hours ago)
- favorites button working** (Kazi Rifat Morshed • 19 hours ago)
- Add SQL query example for note** (Kazi Rifat Morshed • yesterday)
- Redirect to login page when user not found in profile** (Kazi Rifat Morshed • yesterday)
- schema** (Kazi Rifat Morshed • 2 days ago)
- Add user_id to SQL query in SearchItems for enhanced data retrieval** (RimonIslam • 5 days ago)
- Add circular button for active/inactive status in SearchItems** (RimonIslam • 5 days ago)
- Updated SearchItems**

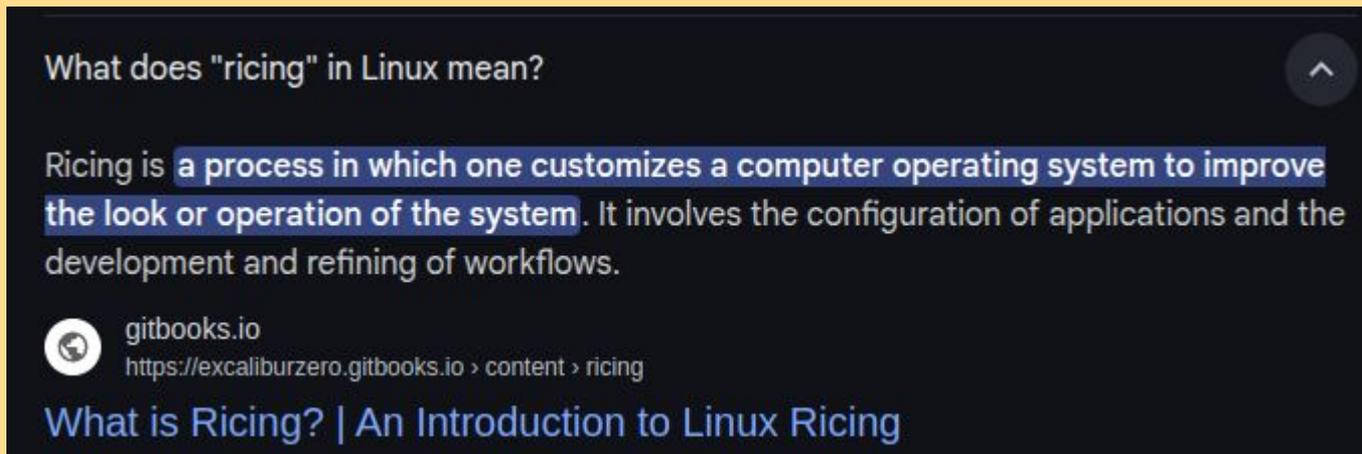
History

1 changed file: FrontEnd/SearchItems.php

```
FrontEnd/SearchItems.php
@@ -394,7 +394,7 @@ $result = $conn->query($sql);
394 394         isset($_GET["condition"]) ||
395 395         isset($_GET["sort"])
396 396     ) {
397 -     $sql = "SELECT sa.*, a.*, u.full_name,
397 +     $sql = "SELECT sa.*, a.*, u.full_name, posts.user_id,
398 398         (SELECT phone_no FROM phone_no WHERE user_id = posts.user_id LIMIT 1) as contact_phone,
399 399         (SELECT email FROM emails WHERE user_id = posts.user_id LIMIT 1) as contact_email
400 400     FROM sell_advertisement sa
```

- Reset to commit...
- Checkout commit
- Reorder commit
- Revert changes in commit**
- Create branch from commit
- Create Tag...
- Cherry-pick commit...
- Copy SHA
- Copy tag
- View on GitHub

Rice your github profile 🥺



Click(🏠):

<https://zzetao.github.io/awesome-github-profile/>

Open Source Intelligence (OSINT) is the process of gathering and analyzing publicly available information to gain actionable insights, often used for security assessment, threat intelligence, and decision-making.



I want to learn more 🥺

- The Official GitHub Training Manual: <https://githubtraining.github.io/training-manual/#/>
- The Git Community Book: <https://schacon.github.io/gitbook/>
- Git Cheat Sheet: <https://sharafat.pages.dev/git/>
- <https://www.deployhq.com/git>
- Learn Git Branching: <https://learngitbranching.js.org>
- <https://fity.club/lists/suggestions/visualizing-git/>
- GitKraken Tutorials: <https://www.gitkraken.com/learn/git/tutorials>



<https://gitbybit.com>

The image shows a screenshot of the GitByBit website and a code editor interface. The website has a dark theme with a navigation bar at the top containing links for 'Course demo', 'Gitopedia', 'Blog', and a 'PRO' badge. The main heading is 'Learn Git through PRACTICE', with 'PRACTICE' in a white box. Below this, a paragraph describes the course: 'GitByBit is a course that teaches you Git through practice right in your code editor. You follow bite-sized instructions, run real Git commands in the terminal or click through your editor's Git interface, and the course verifies what happened. When something breaks, it tells you why and how to get unstuck. Start from the very basics and learn everything important about Git, bit by bit.'

Below the text, there is a section titled 'CHOOSE YOUR CODE EDITOR' with two buttons: 'Start in VS Code' (blue) and 'Start in Cursor' (white).

The bottom part of the image shows a code editor window with the GitByBit interface. The left sidebar shows the course menu with 'Part 1: Working Solo' and 'Progress: Step 17 of 49'. The main area shows a step titled '3. Getting files into the repository' with the sub-heading 'Initializing a repository'. A red error message says 'Initialize a new Git repository NOT DONE'. Below this, there is a message: 'We're about to initialize our first repository! I hope you didn't close the terminal yet, because we're going to use it soon. Before we actually create the repository, I'd like to explain something very important about working in the terminal.' and a 'Go on' button.

I want to learn again 😓

Hablu Programmer Bangla Tutorial:

<https://youtube.com/playlist?list=PLNMnAEqLBwmqnr-hhla2z-2janfkIDV4A&si=GHLZsFTtwij9JFQI>

Anisul Islam Bangla Tutorial:

<https://youtube.com/playlist?list=PLgH5QX0i9K3qAW8DT6I0XOxC23qnA4FL-&si=gstjVOS-qsTtJTBN>



01

বাংলাতে
Git & Github
INTRODUCTION & SIGN UP

Git & Github Bangla Tutorial

by Hablu Programmer

Playlist · 7 videos · 147,266 views

Hello My Friends. In This Video I Will Teach You "Git & Github Tutorial" (git & github bangla tutorial) |GitHub| ...more

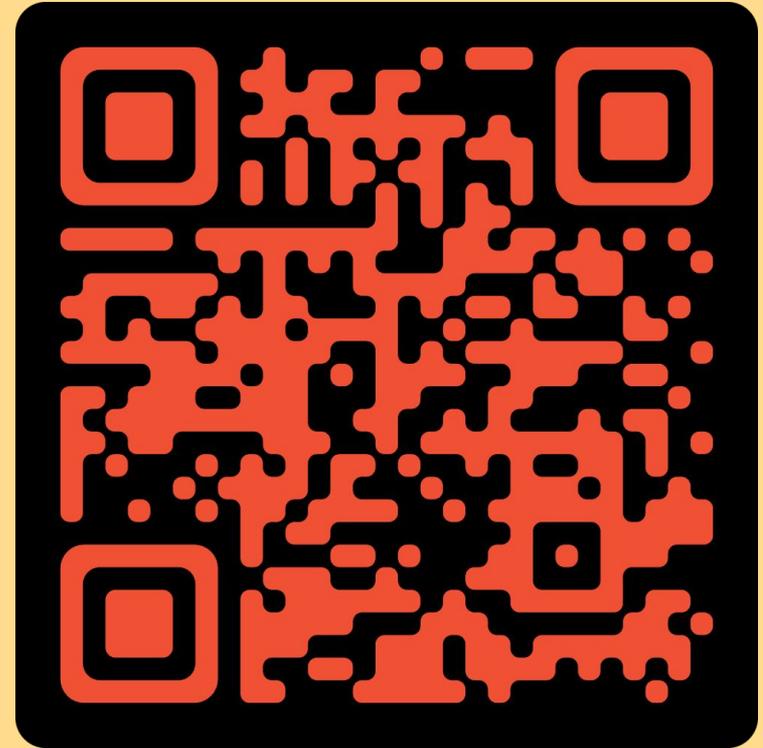
▶ Play all

Last meme 🤪🤪🤪





Slides are available at:



<https://kazirifatmorshed.github.io/resources.html>