

# {Secure Systems and Programmable Networks: Tools for the Future}



Università degli Studi di Catania  
Dipartimento di Matematica e Informatica  
2025





# GitHub

## Git and cloud

2007

# What is GitHub?

The screenshot shows the GitHub homepage with a dark blue background. At the top, there's a navigation bar with links for Product, Team, Enterprise, Explore, Marketplace, and Pricing. On the right side of the header are search bars and sign-in options for "Sign in" and "Sign up". The main visual is a large, glowing blue globe with a network of lines and dots representing global software development. In the bottom right corner, there's a cartoon illustration of an astronaut floating in space, wearing a helmet with a reflection of the Earth. The central text on the page reads "Where the world builds software" in large white letters, followed by a subtitle: "Millions of developers and companies build, ship, and maintain their software on GitHub—the largest and most advanced development platform in the world." Below this text are two buttons: "Email address" and "Sign up for GitHub". At the bottom of the page, there are four statistics: "73+ million Developers", "4+ million Organizations", "200+ million Repositories", and "84% Fortune 100".

Where the world  
builds software

Millions of developers and companies build, ship, and maintain their software on GitHub—the largest and most advanced development platform in the world.

Email address [Sign up for GitHub](#)

73+ million Developers

4+ million Organizations

200+ million Repositories

84% Fortune 100

Made with Slides.com

GitHub



GitLab



Bitbucket



# github.com/torvalds

Overview   Repositories 6   Projects   Packages   Stars 2



**Linus Torvalds**  
torvalds

Follow

155k followers · 0 following

Linux Foundation  
Portland, OR

Achievements



Organizations

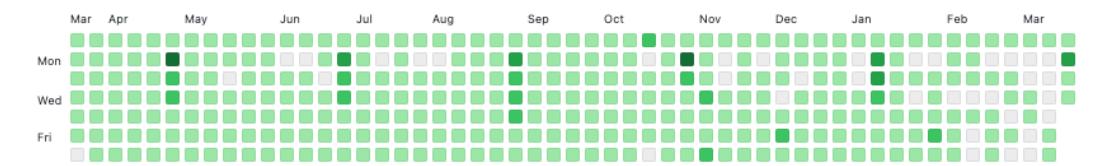


Block or Report

Popular repositories

Repository	Type	Description	Contributors	Stars	Forks
linux	Public	Linux kernel source tree	● C	129k	42.1k
uemacs	Public	Random version of microemacs with my private modifications	● C	836	181
test-tlb	Public	Stupid memory latency and TLB tester	● C	445	158
pesconvert	Public	Brother PES file converter	● C	217	51
subsurface-for-dirk	Public	Forked from subsurface/subsurface  Do not use - the real upstream is Subsurface-divelog/subsurface	● C++	199	53
libdc-for-dirk	Public	Forked from subsurface/libdc  Only use for syncing with Dirk, don't use for anything else	● C	138	43

2,320 contributions in the last year



Learn how we count contributions

Less More

Contribution activity

2022

March 2022

2021

S

The screenshot shows a GitHub profile page for the organization 'UNICT Devs'. The page has a dark blue header with the GitHub logo and a search bar. Below the header, there are cards for 'Microsoft', 'OpenAI', and 'UNICT Devs'. The 'UNICT Devs' card includes a verified badge and a link to https://openai.com/. The main content area shows the 'Overview' tab selected, with links to 'Repositories' (33), 'Packages', 'People' (35), 'Teams' (1), 'Projects', and 'Settings'. On the left, a sidebar lists 'Popular repositories': 'material-d' (Material Des, 45.3k stars), 'material-d' (Material Des, 0 stars, HTML), 'zx' (A tool for wr, 0 stars, JavaScript), and 'go-tpm-t' (Go packag, 0 stars). The 'Repositories' section also has a 'Find a repository' search bar. The main content area contains a README.md file with the following content:

```
Hi there 🎉  
Join our Telegram group and start to contribute 😊  
https://t.me/+QUBs3tgk4kqPyhEY  
Check our projects!  
Telegram Bots & channels:  
• @DMI_Bot  
• @Spotted_DMI_Bot & @Spotted_DMI  
• @ERSUBot & @ERSUnews  
• UNICT Bot that is behind @DMInews and all the channels  
• unict-reservation-bot  
• MedBot  
• OpenJobDMI & open-job-dmi website  
• Albo-2-telegram  
Generic UNICT projects:  
• unict-telegram-channels-groups  
• OPIS Manager  
• UNICT-Elezioni  
• Elezioni Universitarie doc  
• Saturday Morning Snippets  
• Santini Generator
```

On the right side, there are sections for 'People' (a grid of user profiles), 'Top languages' (Python, HTML, TypeScript, PHP, JavaScript), and 'Most used topics' (telegram, unict, bot, telegram-bot, opis).

# Followers - Following - Stars

The screenshot shows two main sections of a GitHub interface. On the left, a user profile for 'aegroto' is displayed, featuring a large circular icon with blue bars. Below it are sections for 'Recent repos', 'Recent activity', 'Achievements', and 'Organizations'. On the right, the GitHub page for the organization 'UNICT Devs' is shown, featuring a circular logo with a cat icon. The page includes tabs for 'Overview', 'Repositories' (33), 'Packages', and more. The 'Overview' tab displays a README.md file with the text 'Hi there 🙌', a link to a Telegram group, and instructions to join. It also lists several repositories and their details.

**aegroto**

- Recent repos
- Find a repo
- Recent activity
- refactor:
- Initial imp:
- chore: mi
- chore: ap
- Your teams
- Find a team
- Organizations
- Block or Report

**UNICT Devs**

All UNICT projects

Italy

Unfollow

Overview Repositories 33 Packages ...

README.md Public

Hi there 🙌

Join our Telegram group and start to contribute 😊

<https://t.me/+QUbs3tgk4kqPyhEY>

Check our projects!

Telegram Bots & channels:

- @DMI\_Bot

Sarjuuk pushed to Sarjuuk/aowow yesterday

# Repository

A screenshot of a GitHub profile page for Stefano Borzì. The profile picture shows a man with glasses and a beard. The bio says "Hi there 🎉". Below the bio is a "GitHub Stats" box with the following data:

Total Stars Earned:	427
Total Commits (2022):	382
Total PRs:	628
Total Issues:	478
Contributed to:	115

The stats box also features a large "A+" rating icon. Below the stats box is a section titled "Telegram Bots:" with a bulleted list of bot names. The list includes:

- Notify-me
- EPUB-to-PDF @epub\_to\_pdf\_bot
- DMI-BOT @DMI\_Bot
- Speech-Gender-Recognition-Bot @GenderSpeechBot
- QR-Scanner-Bot @qr\_scanner\_bot
- PNG-reindexer-bot @png\_reindexer\_bot
- TC-Telegram-Bot
- Telegram-DB-Backup

On the right side of the profile page, a context menu is open, triggered by a red arrow. The menu options are:

- New repository
- Import repository
- New gist
- New organization
- New project

# Create a new repository - 1

## Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository](#).

### Repository template

Start your repository with a template repository's contents.

No template ▾

Owner \*



Helias ▾

Repository name \*

git-course



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

Description (optional)

 Public

Anyone on the internet can see this repository. You choose who can commit.

 Private

You choose who can see and commit to this repository.

## Create a new repository - 2

**Initialize this repository with:**  
Skip this step if you're importing an existing repository.

**Add a README file**  
This is where you can write a long description for your project. [Learn more.](#)

**Add .gitignore**  
Choose which files not to track from a list of templates. [Learn more.](#)

**Choose a license**  
A license tells others what they can and can't do with your code. [Learn more.](#)

**Grant your Marketplace apps access to this repository**  
You are subscribed to 1 Marketplace app

 **Travis CI**  
Test and deploy with confidence

**Create repository**

# Create a new repository - 3

The screenshot shows a GitHub repository page for "Helias / git-course" (Public). The "Code" tab is selected. At the top right, there are buttons for Unwatch (1), Fork (0), and Star (0). Below the tabs, there's a "Quick setup" section with instructions for cloning via Set up in Desktop, HTTPS, or SSH. It also suggests creating a new file or uploading an existing one, and recommends README, LICENSE, and .gitignore files. Below this, there are three sections for command-line operations: "...or create a new repository on the command line" with the following script:

```
echo "# git-course" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin git@github.com:Helias/git-course.git
git push -u origin main
```

...or push an existing repository from the command line

```
git remote add origin git@github.com:Helias/git-course.git
git branch -M main
git push -u origin main
```

...or import code from another repository

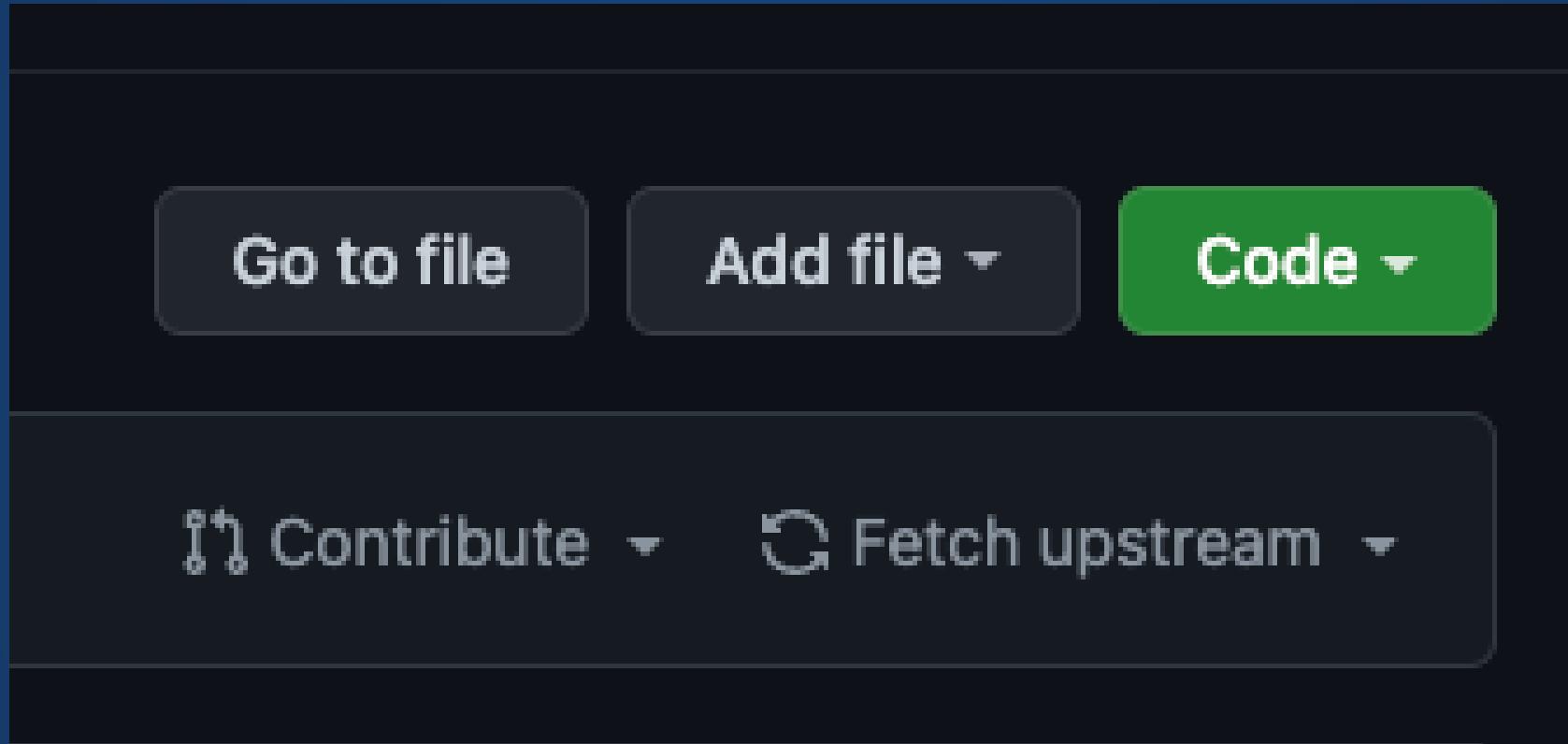
You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

[Import code](#)

## Update your repository

```
1 $ git init
2 $ git clone
3 $ git remote [-v, add, rm]
4 $ git fetch
5
6 $ git pull
7 $ git push
```

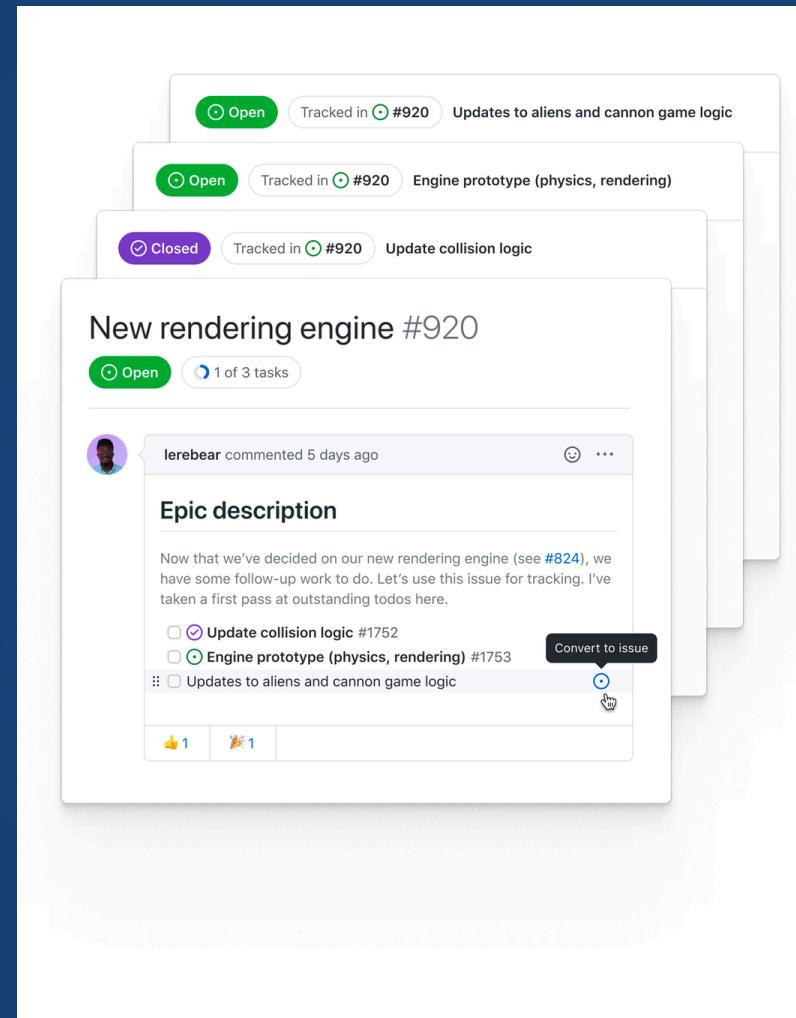
## Update your repository



# Markdown - cheat sheet

Element	Markdown Syntax
Heading	# H1 ## H2 ### H3
Bold	<b>bold text</b>
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)

# GitHub issues



# Telegram & GitHub

**UNICT Community Devs**  
47 members, 4 online

**Pinned message**  
Per chi fosse interessato a questo progetto ci vediamo sabato alle 14:00

*Reply to this message to post a comment on GitHub.* 23:04

**New comment on Telegram-DMI-Bot#205 Feature: multi-lang for erasmus student** 🇮🇹 🇬🇧 by @Helias  
this issue requires <https://github.com/UNICT-DMI/Telegram-DMI-Bot/issues/191>

*Reply to this message to post a comment on GitHub.* 23:05

**1 new commit to Telegram-BookMarketBot:credits:**  
**ebcec65:** chore: add credits and author in the readme by Stefano Borzì 23:10

**New pull request Telegram-BookMarketBot#6 chore: add credits and author in the readme** by: @Helias

*Reply to this message to post a comment on GitHub.* 23:10

**New issue Telegram-BookMarketBot#7 TODO: Dockerfile** by @Helias  
Have you ever used Docker? If so, good, if not, very good! Because you can learn how to do it by taking inspiration from this PR <https://github.com/UNICT-DMI/Telegram-DMFAQ-Bot/pull/4>  
To put it live in our Virtual Private Server we are using portainer and an entire infrastructure made by Herbrant based on docker, so it would be nice to make the docker image of this bot too

*Reply to this message to post a comment on GitHub.* 23:13

Write a message...

**Group Info** X

**UNICT Community ...**  
47 members, 4 online

Be part of it - Sii parte di esso  
Description

Notifications

1353 photos  
 16 videos  
 111 files  
 1 audio file  
 4197 shared links  
 313 voice messages  
 170 GIFs

47 MEMBERS

Luca   
 Stefano ★   
 Luigi Seminara

# GitHub Projects

⊕ ChromieCraft Development Board

Global Kanban Global List Release: MC Release: B... Global Web... Webdevelop... + New view Beta Give feedback

Filter by keyword or by field

Analysing 5 ... Ready to be developed 12 ... In Progress 3 ... Ready to be reviewed and tested 11 ... Done 1 ...

configuration #291 ... [TODOs] Transmog & Morphs Important Features Normal

mod-pvp-zones #7 ... Collectables Important Features Normal

azerothcore-wotlk #9777 ... [Molten Core] [Needs Research] Majordomo Executus Flamewaker Elite and Priest Movementspeed Molten Core High

acore-cms #37 ... Feature: add 2fa support Webdevelopment

acore-cms #92 ... Buying from shop when worldserver is down Webdevelopment

chromiecraft #2769 ... Character creation disconnections Important Bugs High

azerothcore-wotlk #10941 ... [BWL] Death Talon Hatcher - Incorrect position and not patrolling Blackwing Lair Normal

azerothcore-wotlk #10766 ... [BWL] Excessive Trash Drops Blackwing Lair Normal

azerothcore-wotlk #9369 ... Basic Campfire could be stacked on top of each other Important Bugs Normal

acore-cms #96 ... [UI improvement] Improve char selection UI in shop services Webdevelopment

acore-cms #35 ... Feature request: Shop bills should clearly show the sent command Webdevelopment

mod-cfbg #99 ... BG balance system is bugged Important Features High

azerothcore-wotlk #10964 ... [BWL] Killing Razorgore with the Eggs still alive should wipe the raid Blackwing Lair Normal

configuration #346 ... Initial impression Webdevelopment

azerothcore-wotlk #11049 ... Premeditation, Sub Rogue, (combo points bug) Spell Issues Normal

azerothcore-wotlk #11063 ... [BWL] Blackwing Warlocks - Portal closure on death Blackwing Lair Low

azerothcore-wotlk #11060 ... [BWL] Chromaggus Time Lapse should half threat and restore threat on time lapse expire Blackwing Lair Normal

azerothcore-wotlk #11058 ... [BWL] Suppression Room Traps should stay down once Broodlord Lashlayer is defeated Blackwing Lair Normal

azerothcore-wotlk #10820 ... Judgement of Light, Judgement of Wisdom healing/mana regen proc Spell Issues Normal

mod-progression-system #175 ...

**+**

# GitHub Pages

The screenshot shows a GitHub Pages site for a project named "Spotted dmi bot". The URL in the browser bar is `unict-dmi.github.io/Telegram-SpottedDMI-Bot/`. The page features a header with the project name and a navigation bar with links like "View page source". A main content area contains a heading "Spotted dmi bot's documentation", a paragraph about finding the bot on Telegram, and a "Contents:" section with a detailed module hierarchy.

Spotted dmi bot's documentation

You can find this bot live on telegram [@Spotted\\_DMI\\_bot](#)

For the complete source code, check this github [repo](#)

**Contents:**

- [Main](#)
- [All modules](#)
  - [Data modules](#)
    - [data\\_reader](#)
    - [db\\_manager](#)
    - [pending\\_post](#)
    - [post\\_data](#)
    - [published\\_post](#)
    - [report](#)
    - [user](#)
  - [Debug Modules](#)
    - [log\\_manager](#)

# Pull Request

← Discussion  
4 comments

January 31

**Spotted DMI**  
Git è uno strumento davvero potente, che ha radicalmente cambiato il mio modo di sviluppare quando ho iniziato ad usarlo seriamente. Mi sono però reso conto di una cosa, ha una difficoltà di apprendimento iniziale estrema. Ho visto giovani programmati davvero in gamba imparare i rudimenti di un linguaggio di programmazione in un paio di giorni e tremare di fronte al concetto di pull request. Allo stesso modo ho visto seniors con moltissima esperienza non avere ancora chiare alcune sue funzionalità o avere la necessità spesso e volentieri di perdere qualche ora cercando online per risolvere un problema con git.

Secondo voi ciò a cosa è dovuto? 446 views 09:49

Discussion started

**Spotted DMI bot**  
by: V per Vedetta (ops) Reply 09:49

 0  1

 0  0  0  0 

**Lorenzo Catania** owner  
al fatto che probabilmente quei programmati non erano così in gamba ed avevano tanta strada da fare e che non so come si possa diventare senior senza conoscere il versioning 09:50

**Santo Cariotti**  
Colpa dei client grafici edited 10:32

# Pull Request

<https://github.com/UNICT-DMI/Telegram-DMI-Bot/pull/190>

refactor: minor refactoring and improving the menu #190

Merged Helias merged 2 commits into master from update-menu on 20 Jan

Conversation 0 Commits 2 Checks 0 Files changed 2 +32 -28

Helias commented on 19 Jan  
No description provided.

Stefano Borzi added 2 commits 2 months ago

- refactor: minor refactoring and improving the menu c2bdf90
- chore: move cloud to top and regulation to the bottom ab0e590

TendTo approved these changes on 20 Jan

View changes

Helias merged commit cbb58e6 into master on 20 Jan

Revert

Helias deleted the update-menu branch 2 months ago

Restore branch

Reviewers TendTo

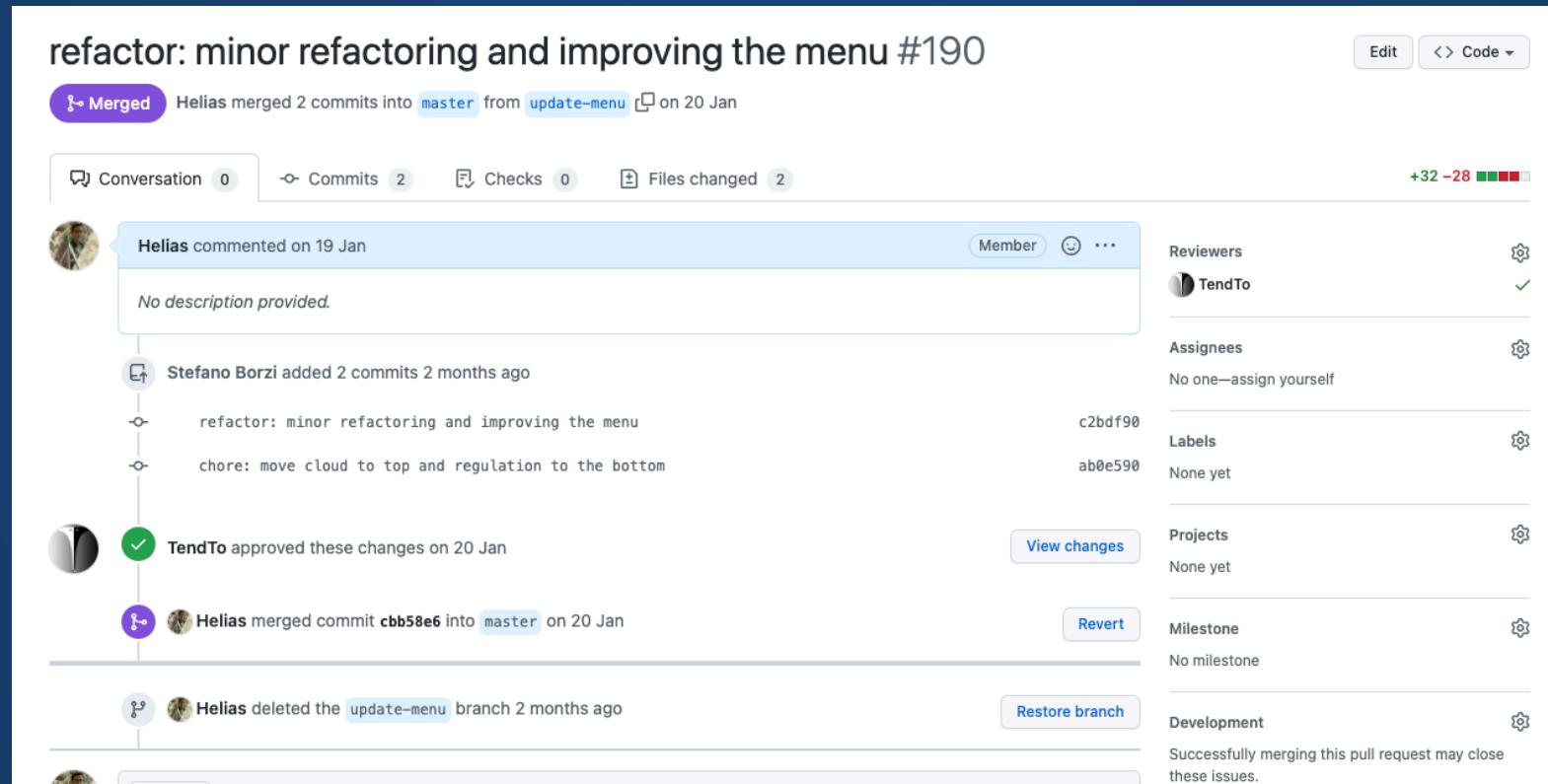
Assignees No one—assign yourself

Labels None yet

Projects None yet

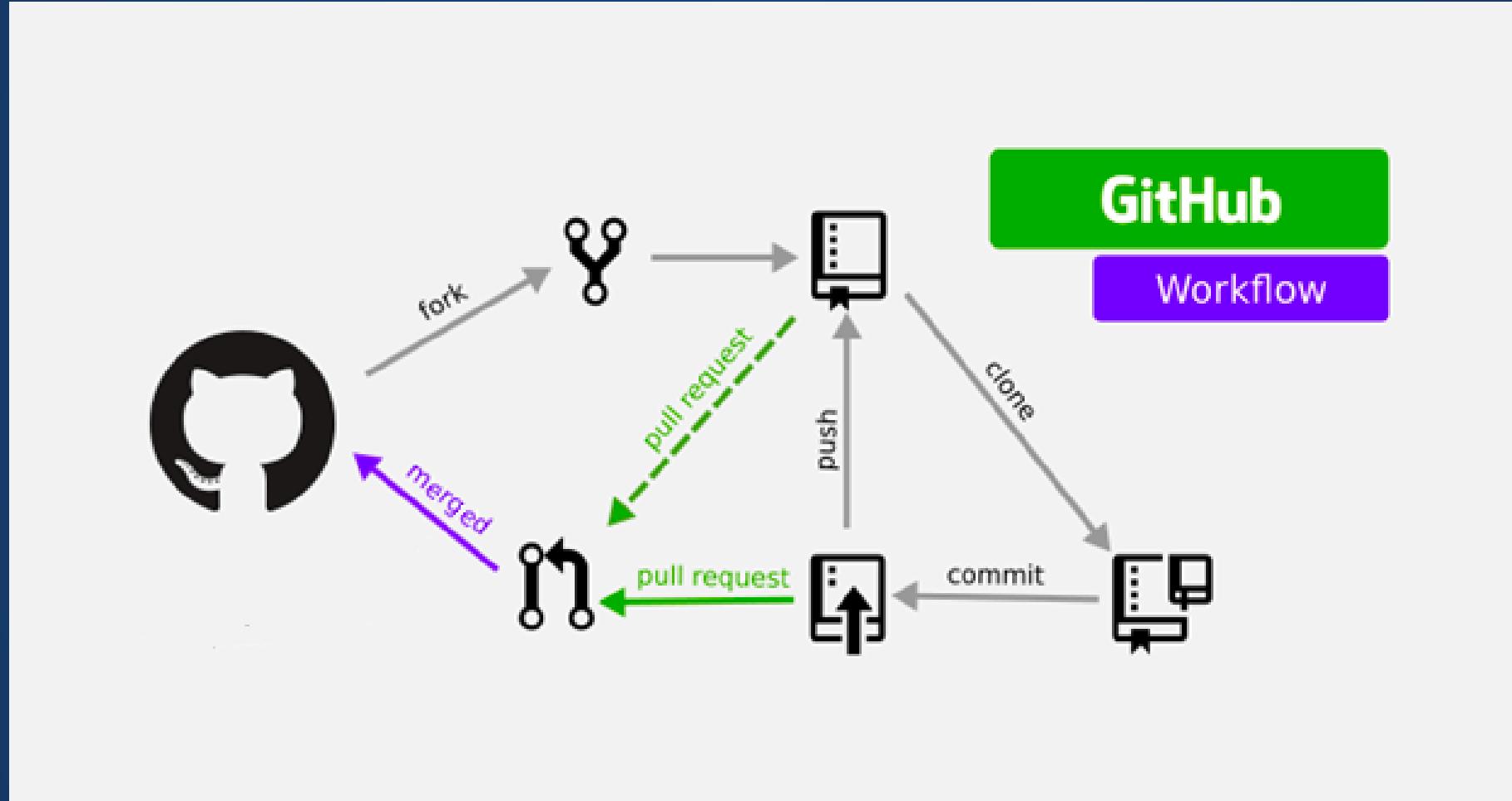
Milestone No milestone

Development Successfully merging this pull request may close these issues.





Fork



# Pull Request

[Pull requests](#) [Discussions](#) [Actions](#) [Security](#) [Insights](#) [Settings](#)

## Fix professors' Markdown parsing #168

[Merged](#) TendTo merged 2 commits into `UNICT-DMI:master` from `dcariotti:fix/professors-exception` on 9 Jun 2021

Conversation 1 Commits 2 Checks 0 Files changed 2 +30 -12

**dcarriotti** commented on 9 May 2021

Escaping the professors text in Markdown V1 raised errors when you tried to search a large numbers of professors (like `/prof G` = 33 entries). This commit introduces the Markdown V2[1] escaping mode and the grouping of professors for 15 entries.

It also disables the web page preview!

[1] [https://python-telegram-bot.readthedocs.io/en/stable/telegram.parsemode.html#telegram.ParseMode.MARKDOWN\\_V2](https://python-telegram-bot.readthedocs.io/en/stable/telegram.parsemode.html#telegram.ParseMode.MARKDOWN_V2)

**dcarriotti** added 2 commits 11 months ago

- feat: escape professors text in markdown v2 7cb831e
- fix: professors text escape in markdown v2 ... f5be032

**drendog** approved these changes on 9 May 2021

**Helias** approved these changes on 9 May 2021

**TendTo** approved these changes on 9 Jun 2021

**TendTo** merged commit `cae4034` into `UNICT-DMI:master` on 9 Jun 2021

**dcarriotti** deleted the `fix/professors-exception` branch 10 months ago

[Edit](#) [Code](#)

**Reviewers**: Helias, drendog, TendTo

**Assignees**: No one—assign yourself

**Labels**: None yet

**Projects**: None yet

**Milestone**: No milestone

**Development**: Successfully merging this pull request may close these issues.  
None yet

**Notifications**: Customize [Unsubscribe](#)  
You're receiving notifications because you're watching this repository.

## Pull Request

### UNICT Devs

<https://github.com/UNICT-DMI/Telegram-DMI-Bot/pull/75>

<https://github.com/UNICT-DMI/Telegram-DMI-Bot/pull/63>

<https://github.com/UNICT-DMI/Telegram-DMI-Bot/pull/128>

<https://github.com/UNICT-DMI/Telegram-DMI-Bot/pull/107>

<https://github.com/UNICT-DMI/Telegram-DMI-Bot/pull/176>

<https://github.com/UNICT-DMI/Telegram-DMI-Bot/pull/179>

<https://github.com/Helias/BG-Queue-Abuser-Viewer/pull/3/>

Pull Request

...others open source communities...

<https://github.com/FFmpeg/FFmpeg/pull/153>

<https://github.com/azerothcore/azerothcore-wotlk/pull/7306>

<https://github.com/azerothcore/azerothcore-wotlk/pull/7283>

<https://github.com/azerothcore/azerothcore-wotlk/pull/2088>

<https://github.com/azerothcore/azerothcore-wotlk/issues/1899>

<https://github.com/azerothcore/Keira3/pull/285>

<https://lkml.org/lkml/2012/7/6/495>

[https://www.reddit.com/r/linux/comments/9in2kz/linus\\_torvalds\\_on\\_his\\_insults\\_respect\\_should\\_be/](https://www.reddit.com/r/linux/comments/9in2kz/linus_torvalds_on_his_insults_respect_should_be/)

# Pull Request

	Author	Label	Projects	Milestones	Reviews	Assignee	Sort
<input type="checkbox"/> 114 Open ✓ 5,569 Closed							
<input type="checkbox"/> <b>Implement AntiCheat System - AntiHacks + warning fix + the last false/positive fixes</b> ×	#2088 by kvipka was closed on 9 Jan 2020 • Changes requested				 135		
<input type="checkbox"/> <b>fix(DB/Core) Fix the CLS damage system and update creature_classlevelstats</b> ●	#4749 by Hacki95 was merged on 20 Mar 2021 • Approved	1 task done			1		113
<input type="checkbox"/> <b>feat(Core/Creature): Implement quest_greetings table</b> ×	CORE DB file-cpp Script To Be Merged						71
<input type="checkbox"/> <b>feat(Core/Database): port TrinityCore database API</b> ×	#5611 by Winfidonarleyan was merged on 22 Jun 2021 • Approved	9 of 10 tasks			1		74
<input type="checkbox"/> <b>feat(Core/QuestTracker): implement quest tracker manager</b> ×	#4112 by Winfidonarleyan was closed on 5 May 2021 • Changes requested	1 task done					74
<input type="checkbox"/> <b>Operation: Gnomeregan!</b> ×	CORE DB Script WIP				1		97
<input type="checkbox"/> <b>feat(Core/CreatureAI): improve npc position during the combat</b> ×	#3369 by Helias was merged on 4 Jan 2021 • Approved	1 task done			1		83
<input type="checkbox"/> <b>(Core) Remove Inhabit Type</b> ✓	CORE DB file-cpp Script To Be Merged - Later				1		91
<input type="checkbox"/> <b>feat(Core/Threading): replace ace threading</b> ×	#4821 by Winfidonarleyan was merged on 16 Apr 2021 • Approved	1 task done			1		54
<input type="checkbox"/> <b>Core/DB: Update all locales to actual TrinityCore</b> ●							56

# Pull Request

Study on your experiences during code reviews in open-source ➔ [Inbox](#) [Updates](#)

 Sophie Qiu <noreply@qemailserver.com> [Unsubscribe](#) Thu, Jan 28, 2021, 4:11 PM [star](#) [Reply](#) [More](#)  
to me ▾

Dear Stefano,

My name is Sophie. I'm a Ph.D. student in the School of Computer Science at Carnegie Mellon University (CMU). I'm studying different styles of giving feedback during code reviews in open source. We intend to publish the results of this study as part of an academic research paper.

I noticed your contributions to azerothcore/azerothcore-wotlk on GitHub and would like to ask you a few questions about your experiences with the code review process.

Could you please participate in a short (~13 min) survey? The survey is available at [here](#). The survey form closes on Thursday, Feb 11.

In order to participate, you must be 18 years of age or older. Your participation is completely voluntary. All survey responses will be de-identified, and we will keep your answers confidential. There is no compensation for participating. You will be asked to complete a brief online consent form prior to taking the survey.

Feel free to contact me at [hsqq@cmu.edu](mailto:hsqq@cmu.edu) if you have any questions about the study. If you do not wish to participate or to be contacted about this research in the future, please let me know and we will remove your contact info.

I look forward to your answers, and thank you for your time and help!

With kind regards,  
Sophie  
Carnegie Mellon University  
[cmustrudel.github.io/](https://cmustrudel.github.io/)  
[www.sophiehsqq.com](http://www.sophiehsqq.com)

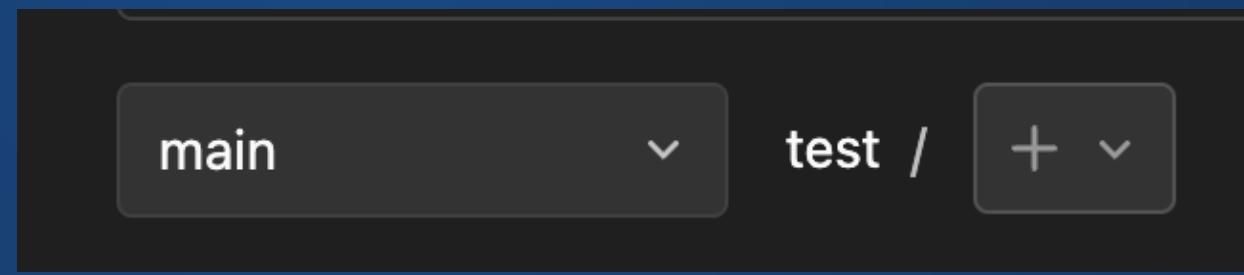
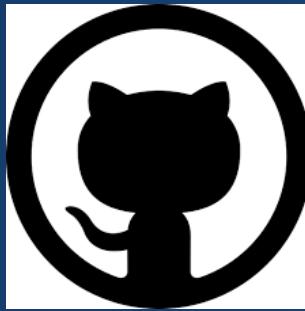
If the above link to the survey does not work, you can copy and paste the URL below into your internet browser:  
[http://cmu.ca1.qualtrics.com/jfe/form/SV\\_1MTWeoDgThE3pTT?Q\\_DL=1UkteYsVGYjuHXR\\_1MTWeoDgThE3pTT\\_MLRP\\_1HeBg3iKNowal6&Q\\_CHL=email](http://cmu.ca1.qualtrics.com/jfe/form/SV_1MTWeoDgThE3pTT?Q_DL=1UkteYsVGYjuHXR_1MTWeoDgThE3pTT_MLRP_1HeBg3iKNowal6&Q_CHL=email)

## GitHub - Main or Master branch?

```
NHQ4009093-MBP:~ 4009093$ mkdir test
NHQ4009093-MBP:~ 4009093$ cd test/
NHQ4009093-MBP:test 4009093$ git init
Initialized empty Git repository in /Users/4009093/test/.git/
NHQ4009093-MBP:test 4009093$ git status
On branch master
←
No commits yet

nothing to commit (create/copy files and use "git add" to track)
NHQ4009093-MBP:test 4009093$
```

## GitHub - Main or Master branch?



## GitHub - Main or Master branch?



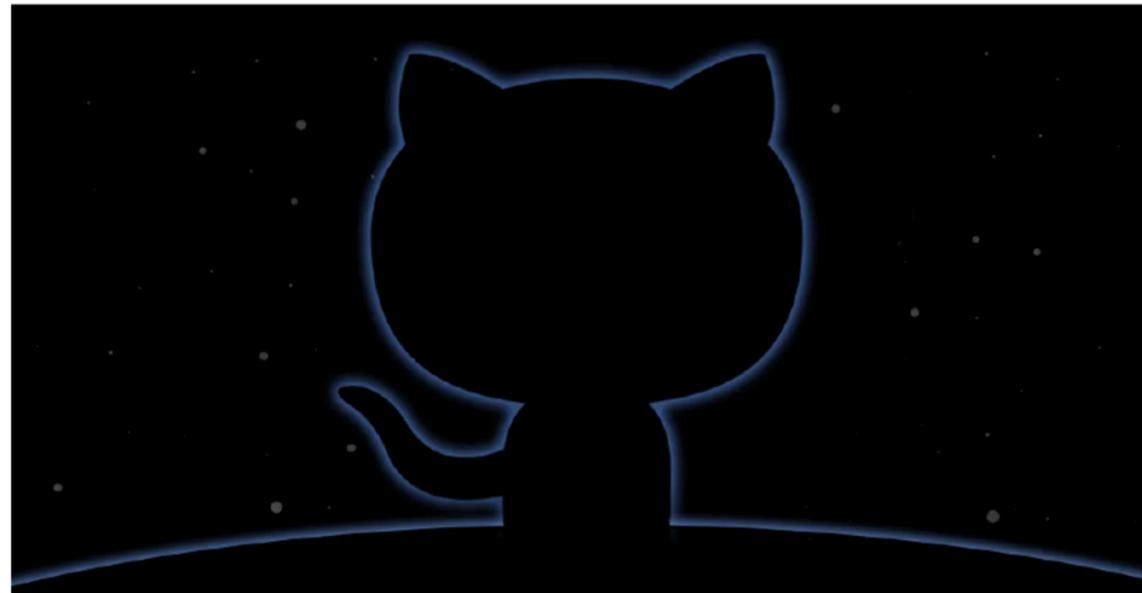
## GitHub - Main or Master branch?

### **Microsoft's GitHub is removing coding terms like 'master' and 'slave'**

"It's a great idea and we are already working on this," said GitHub's CEO.



Shelby Brown July 27, 2020 3:37 p.m. PT



GitHub tweeted its support for the Black Lives Matter movement.

GitHub

## GitHub - Main or Master branch?



**master/slave**

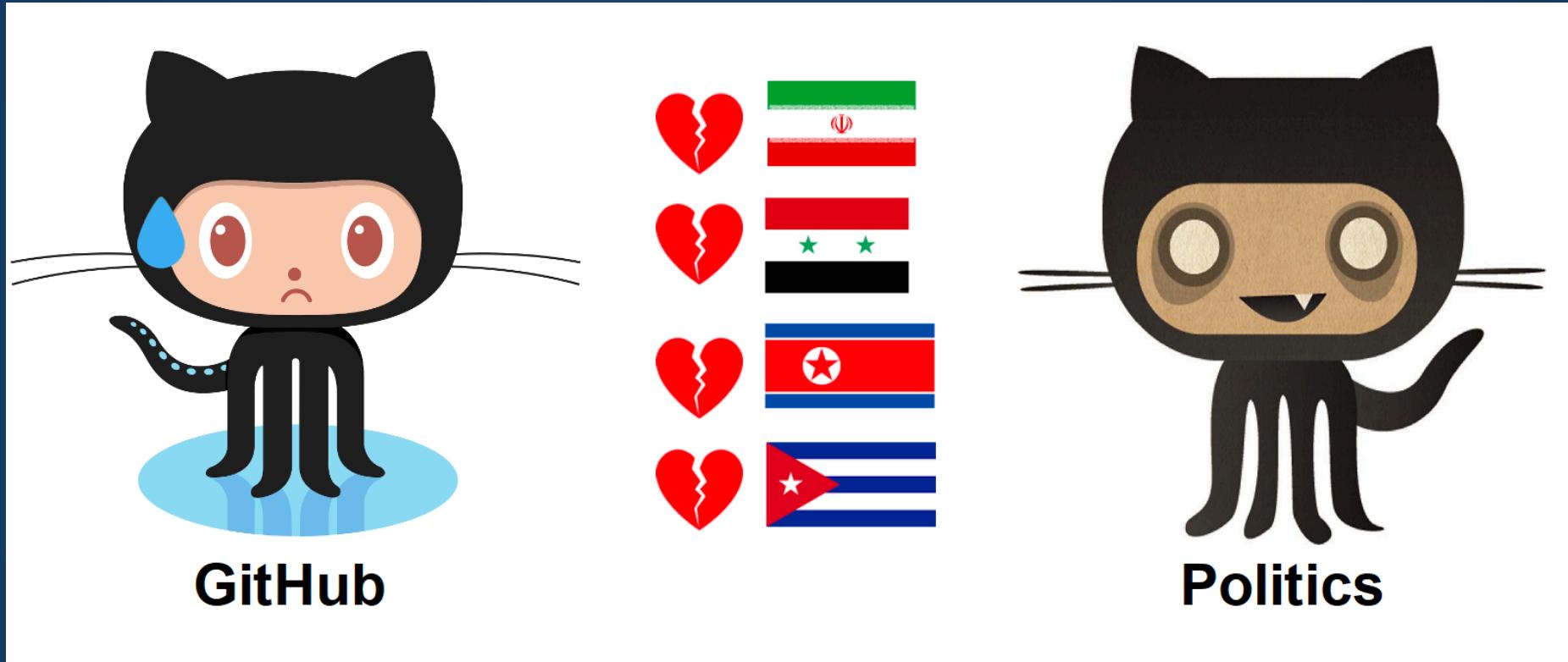


**main/secondary**

## Ban GitHub for russian developers



# GitHub, do not ban us

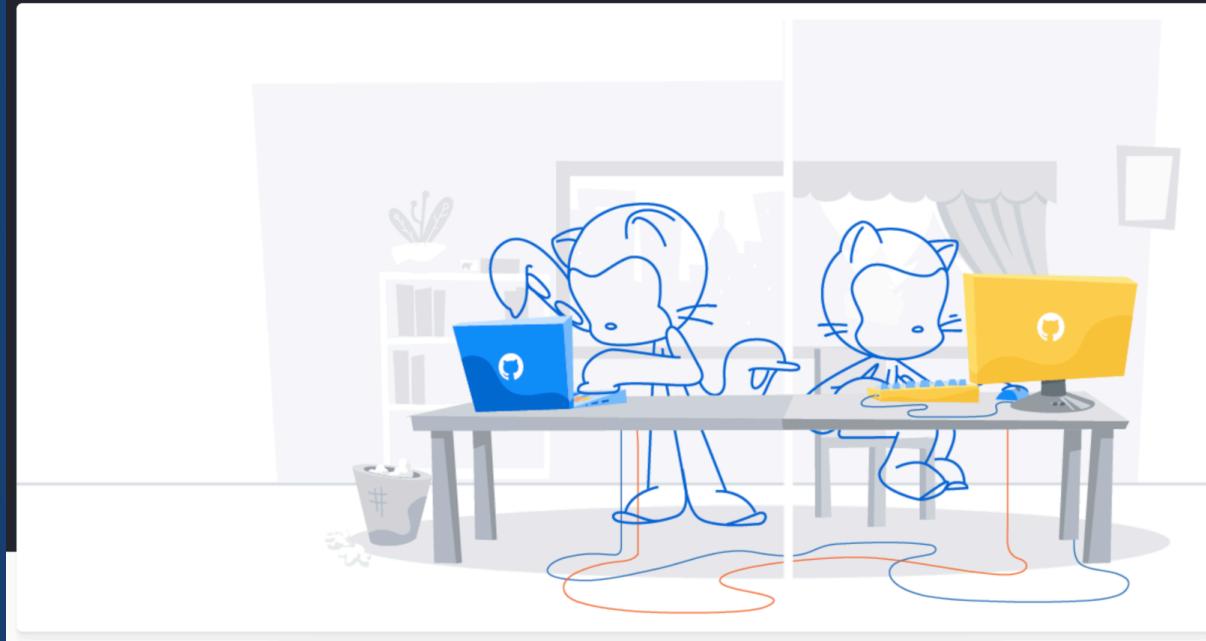


<https://github.com/1995parham/github-do-not-ban-us>

## Github in freedom

# Advancing developer freedom: GitHub is fully available in Iran

Today we are announcing a breakthrough: we have secured a license from the US government to offer GitHub to developers in Iran. This includes all services for individuals and organizations, private and public, free and paid.



<https://github.blog/2021-01-05-advancing-developer-freedom-github-is-fully-available-in-iran/>