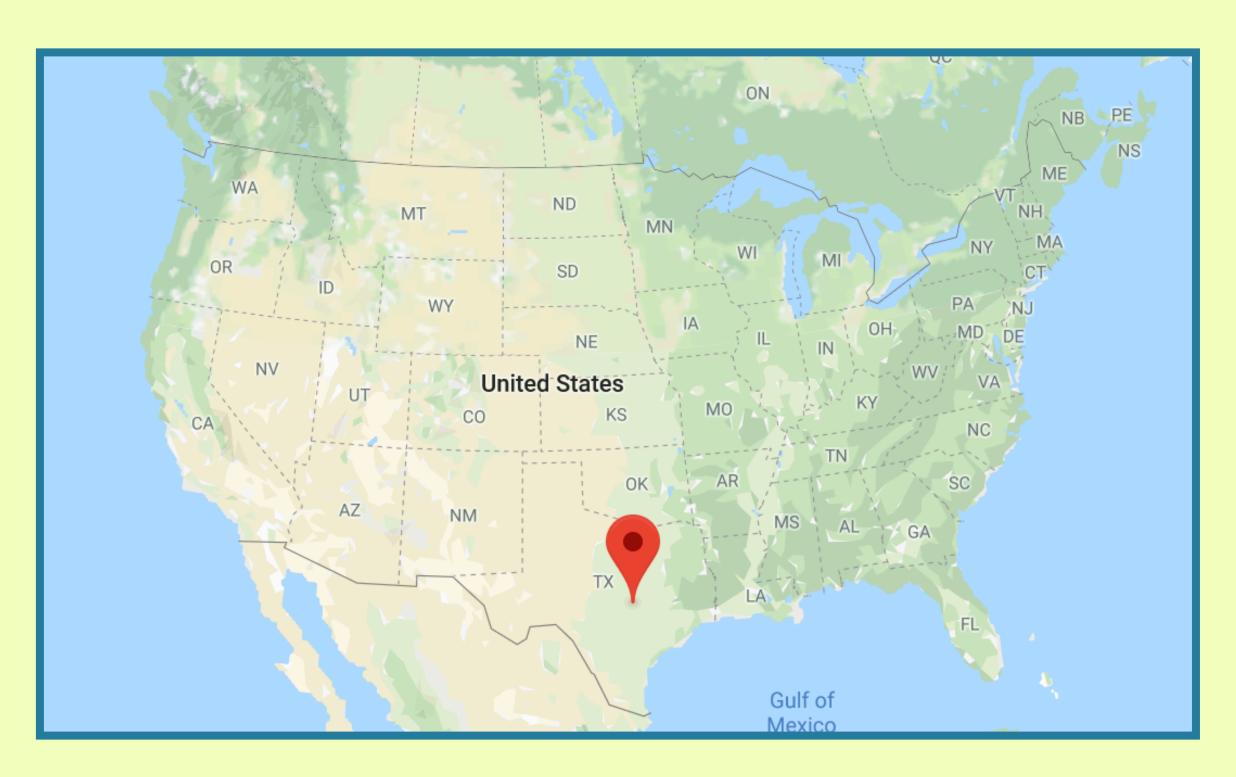
Markings of a Healthy OSS Project

Clement Ho



Clement Ho

Frontend Engineering Manager GitLab

Austin, Texas USA

@ClemMakesApps



Single application for the entire DevOps lifecycle



We are hiring

jobs.gitlab.com

How do you <u>determine</u> whether a project is healthy?

There are 3 types of projects

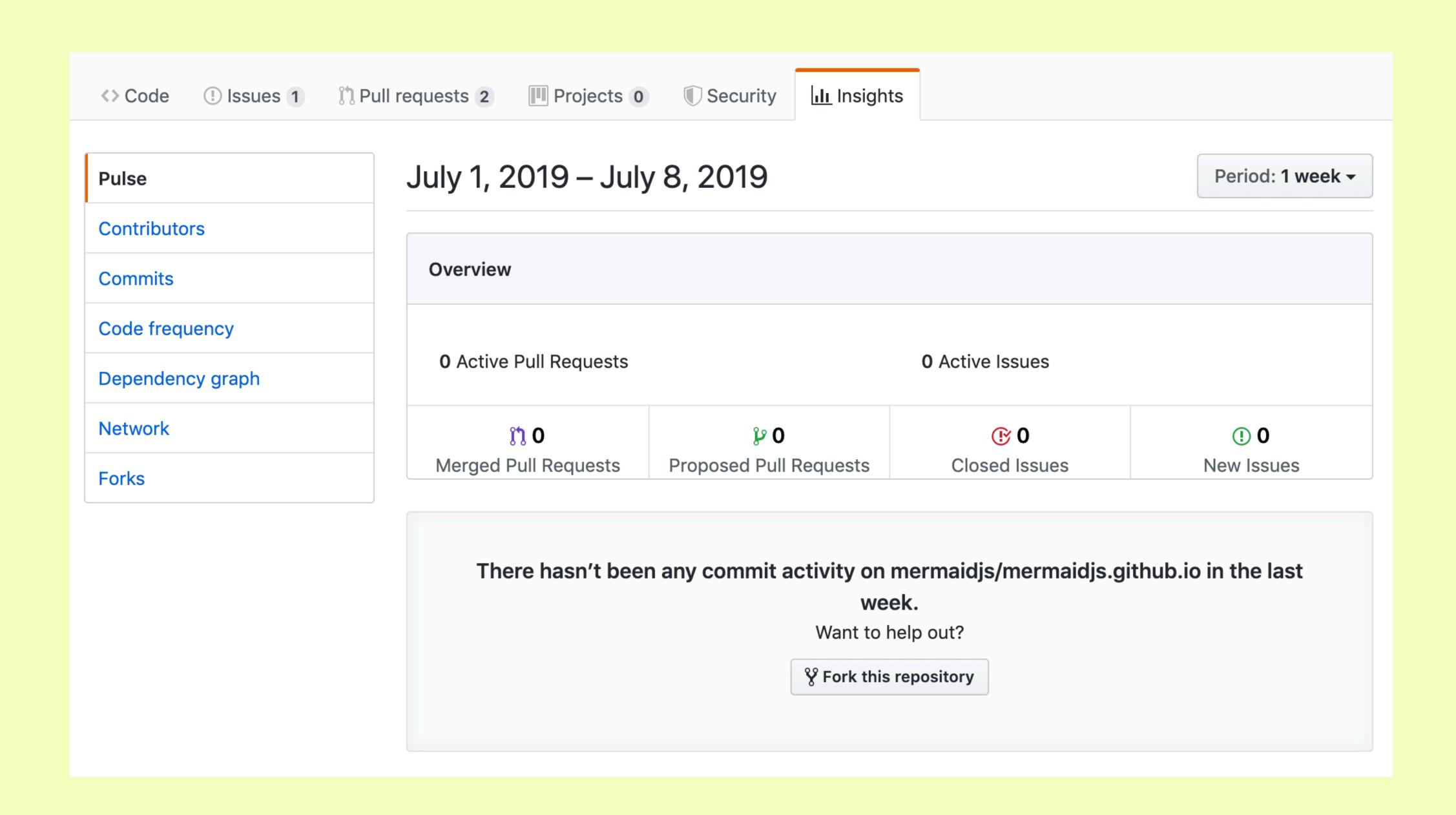
Dead

Surviving

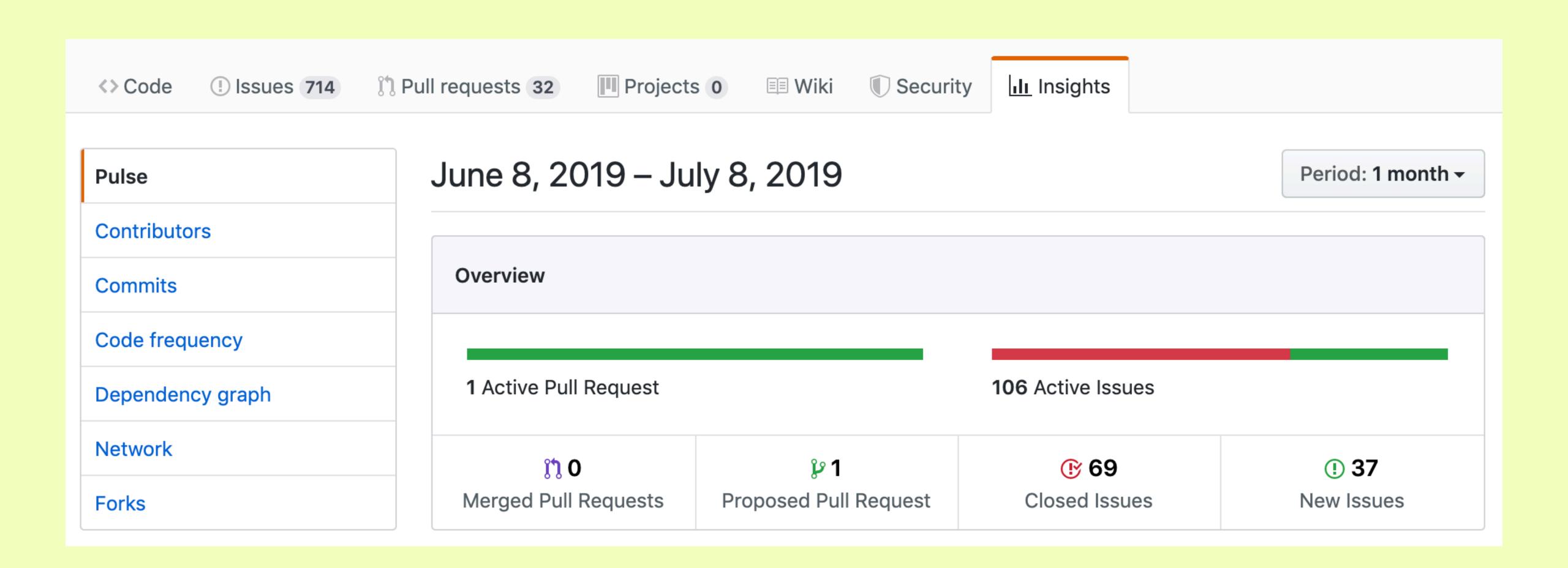
Thriving

Dead Project Little to no project activity*

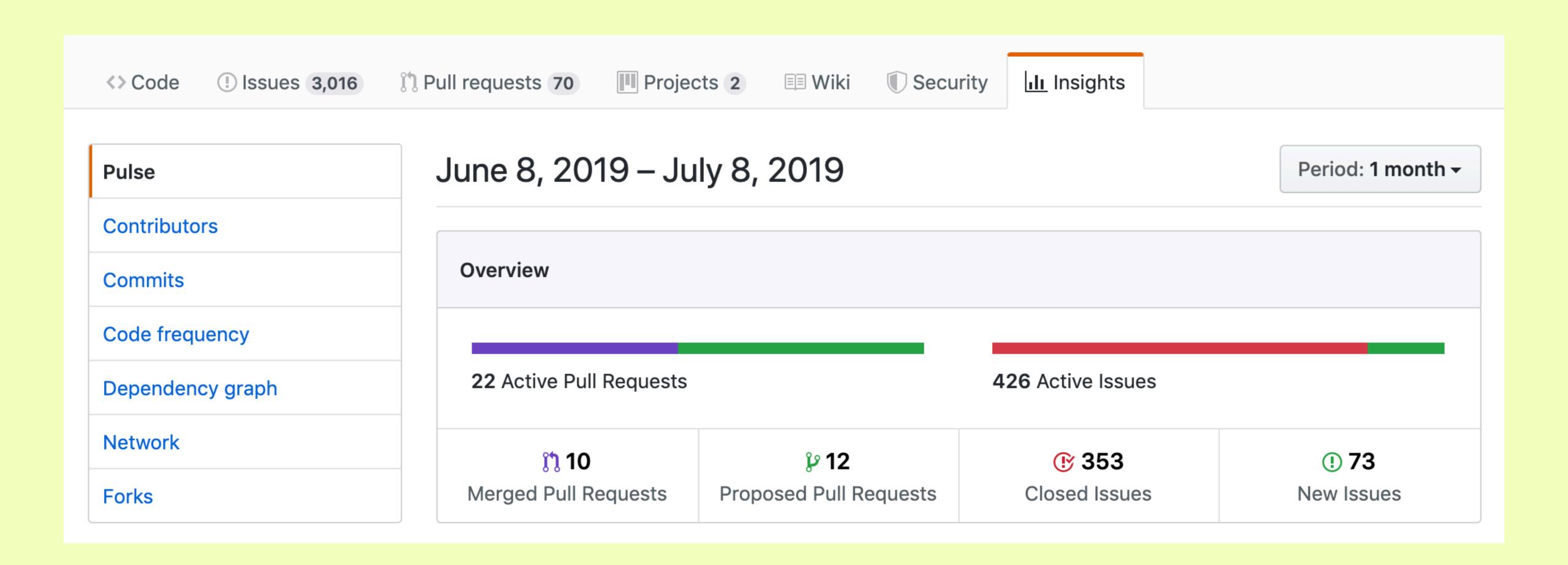
*There are multiple indicators to indicate project activity



Surviving Project Minimal project activity



Thriving Project Vibrant project activity



Thriving Project Have a vibrant future

In an ideal world, we want all OSS projects to have a future

But, dependencies are easy to add but difficult to remove

When was the last time you upgraded a dependency proactively?

Project dependencies are like committing to a long term relationship

Thriving projects should

- 1. be easy to contribute to
- 2. be scalable and maintainable
- 3. have a growing community
- 4. have a growing reputation
- 5. have a good leadership team

Thriving projects should be easy to contribute to

Easy to Contribute

Is there a code of conduct? Is there a license?

Based on your project license,

64% of users will decide whether to use your project

67% of users will decide whether to <u>contribute</u> to your project

Great resources

- Standard code of conduct used by more than 200k projects
 - https://www.contributor-covenant.org/
- Learning more about licenses
 - https://tldrlegal.com



Easy to Contribute

Are there any well defined first-time-only issues?

45% of users find it difficult to get started when contributing to OSS

Great resources

- Guide that helps people get started in contributing
 - https://www.firsttimersonly.com/
- Another resource that people use to search for first time issue
 - https://up-for-grabs.net/

Easy to Contribute

Is there documentation? Are there examples? Are the docs in multiple languages?

Documentation is highly valued, frequently overlooked, and a means for establishing inclusive and accessible communities.

Easy to Contribute

Are community PRs getting merged? Are they all bug fixes or a mixture of features?

All bug fixes => Surviving
All new features => Perfect
Bug fixes + New features => Realistic Goal

The industry average is 15-20 errors per 1000 lines of code

Thriving projects should have a growing community

Growing Community

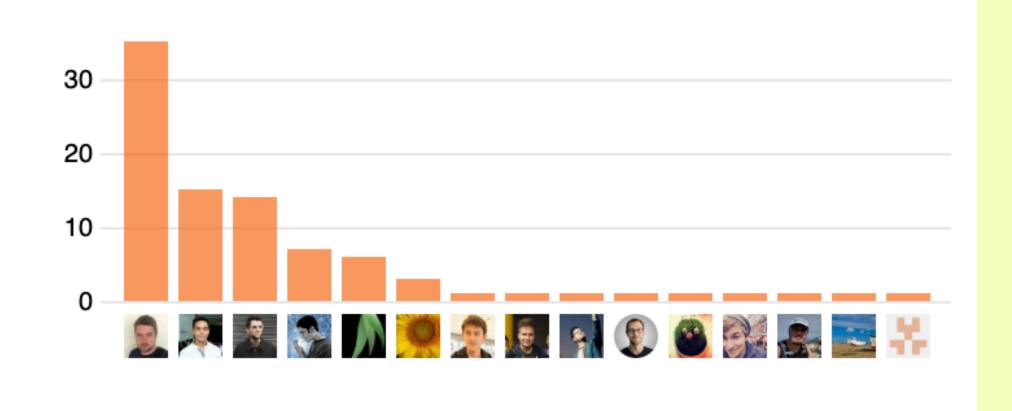
Are conversations about the project taking place in a public medium?

Growing Community

How many users use this project?

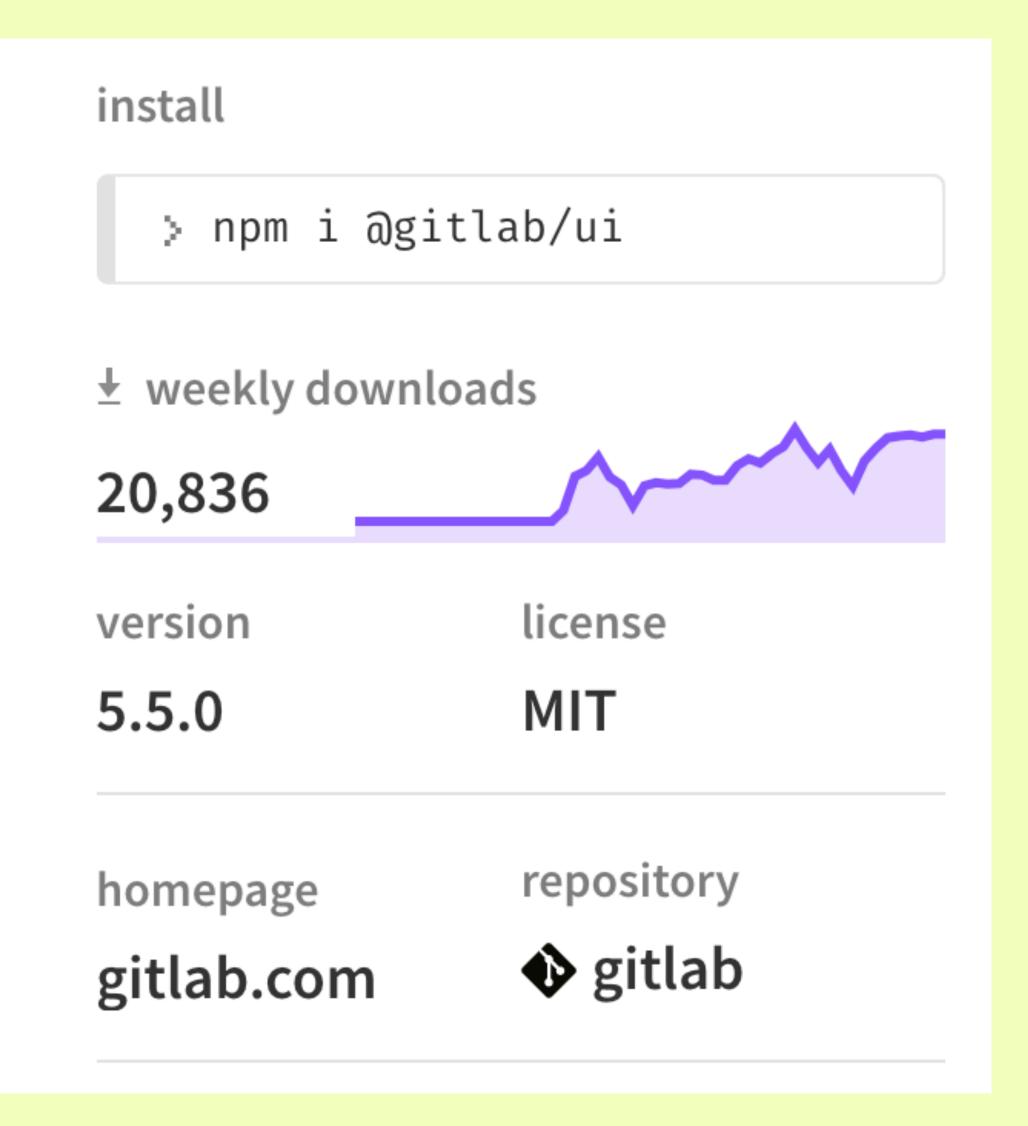
Wider distribution of PR authors indicates a wider community

Excluding merges, 22 authors have pushed 96 commits to master and 96 commits to all branches. On master, 239 files have changed and there have been 15,110 additions and 8,703 deletions.



install > npm i @gitlab/ui ★ weekly downloads 20,836 license version 5.5.0 MIT repository homepage gitlab gitlab.com

Most of this is from our Cl



Thriving projects should have a growing reputation

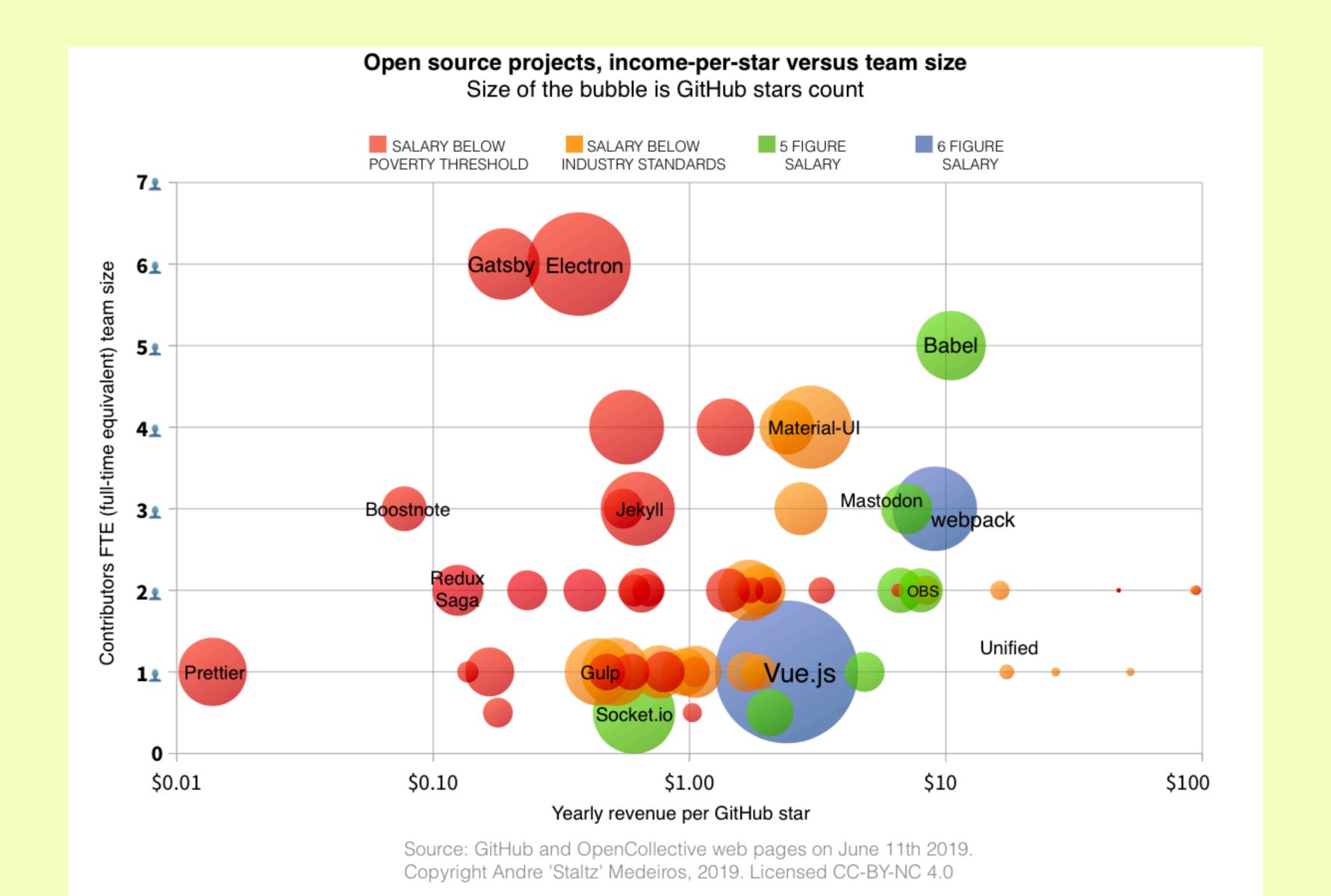
Growing Reputation

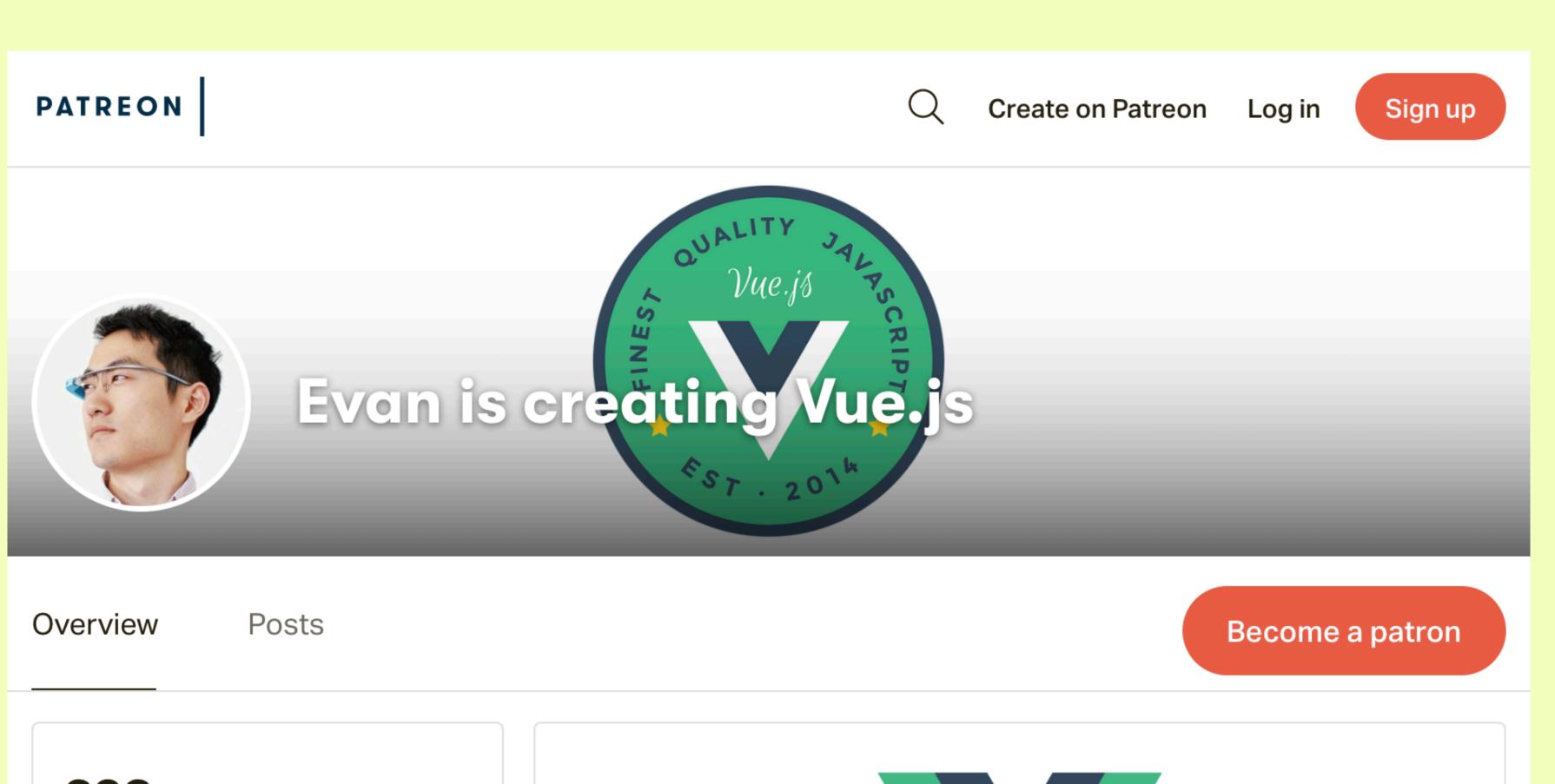
Any companies or organizations advocating/partnering with it?

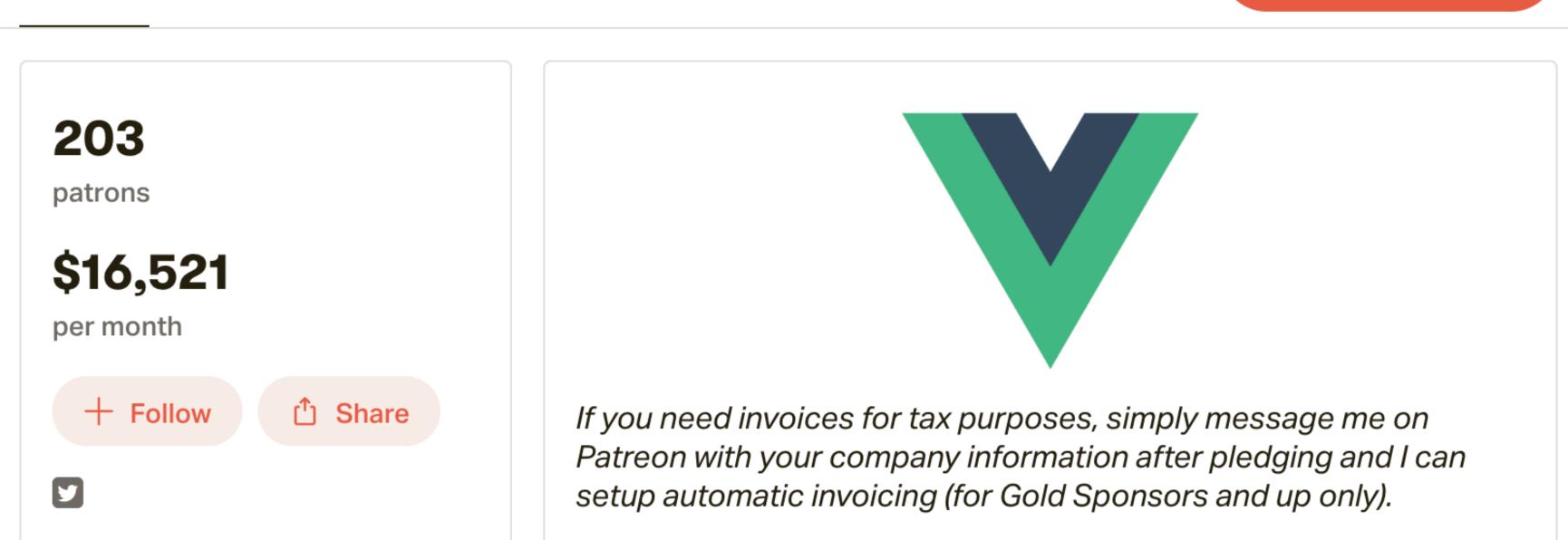




Understand the revenue streams for the project









Search Open Collective

Discover

How it Works

Pricing

Docs & Help

Sign In



webpack

webpack is THE build solution for modern web applications.

Hosted by Open Source Collective 501(c)(6)























Thanks to your financial contributions, we are operating on an estimated annual budget of \$443,771

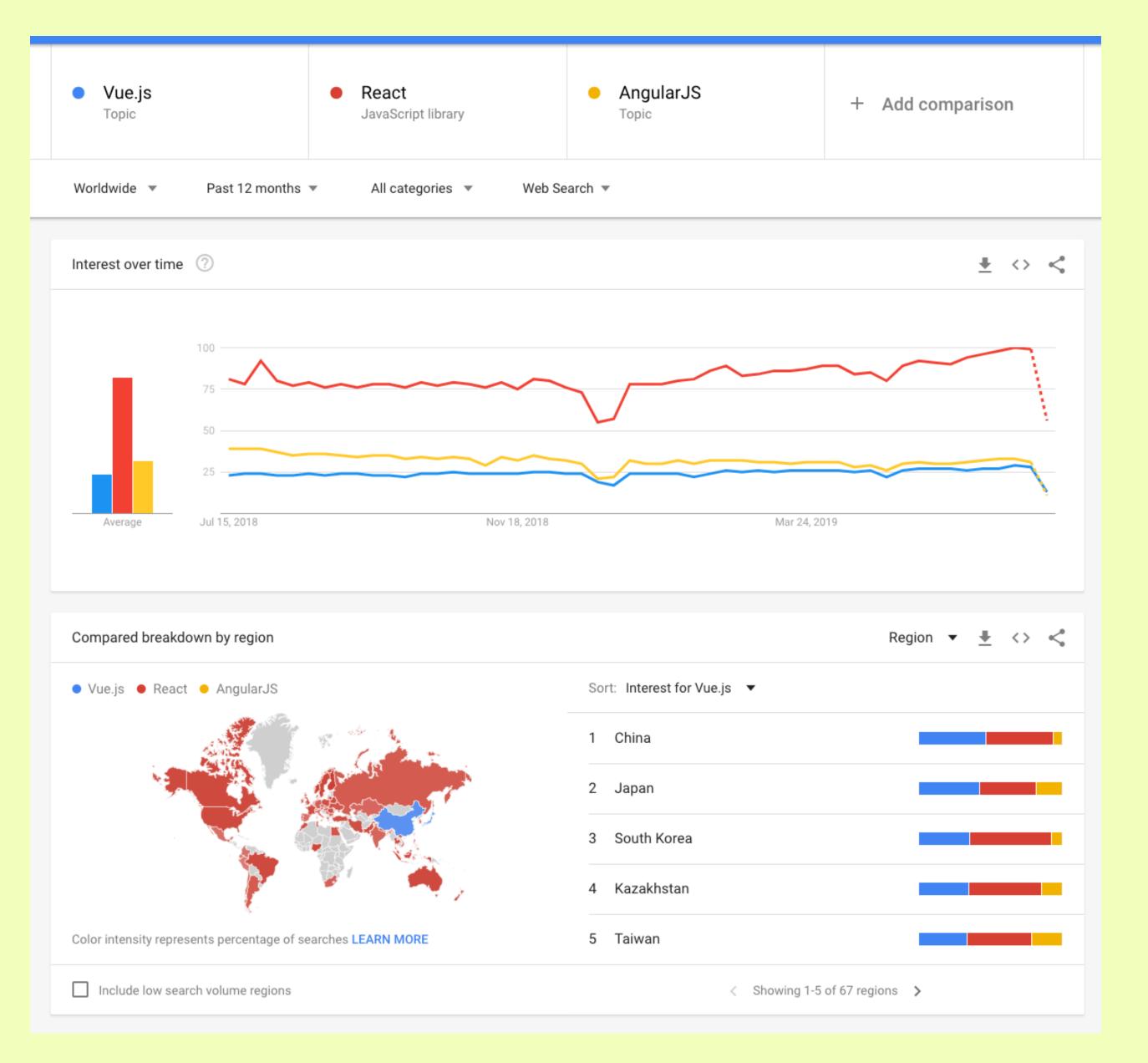
per year

50% Payouts \$255,000 per year 1 FT Maintainer + 50% Payouts \$510,000 1 FT + 100% Payouts \$765,000 per year 2FT + 100% Payouts \$1,000,000 per year

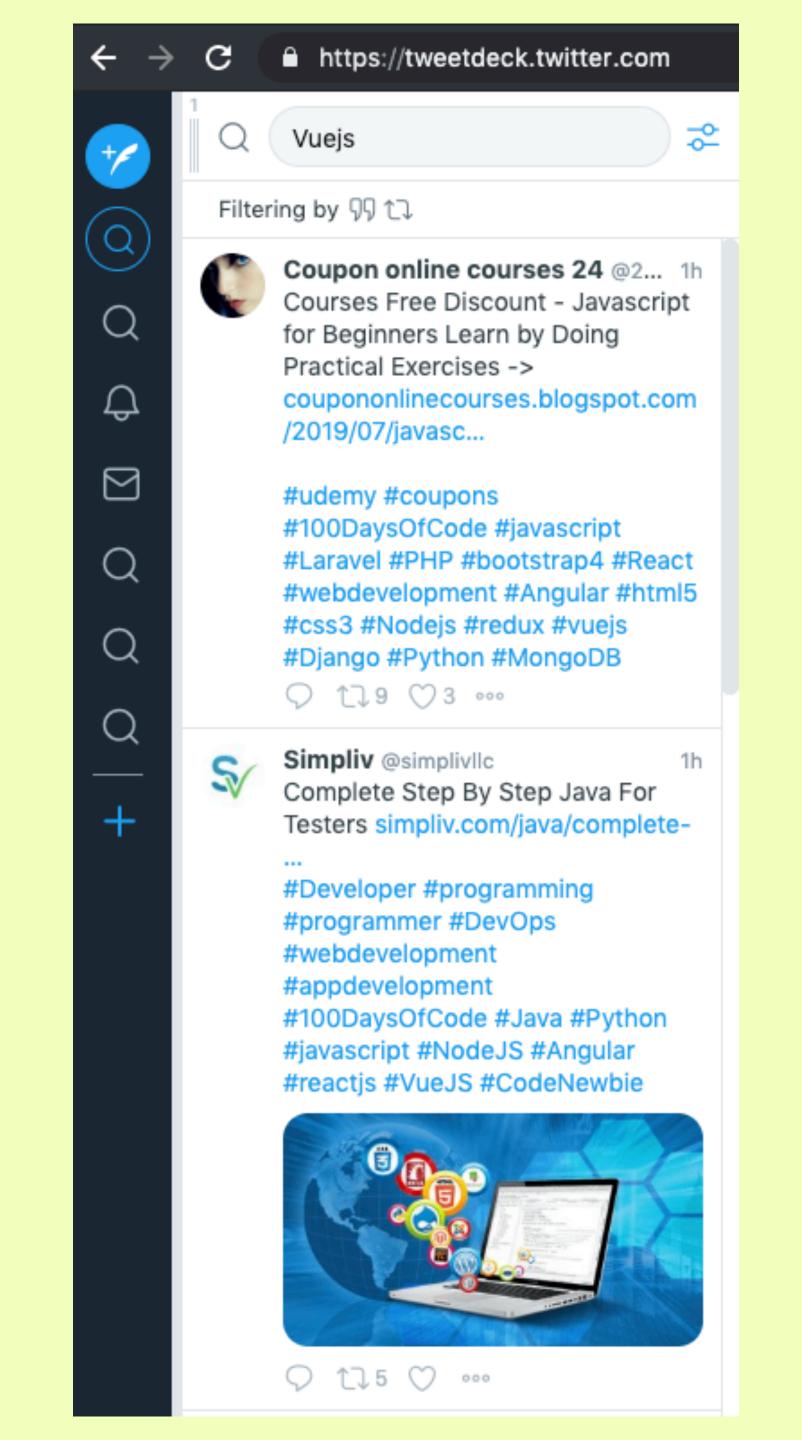
Today's Balance \$17,850.46 Estimated Annual Budget \$443,771

Growing Reputation

Is there an increase in search trends? Tutorials, blog posts or social media conversations?

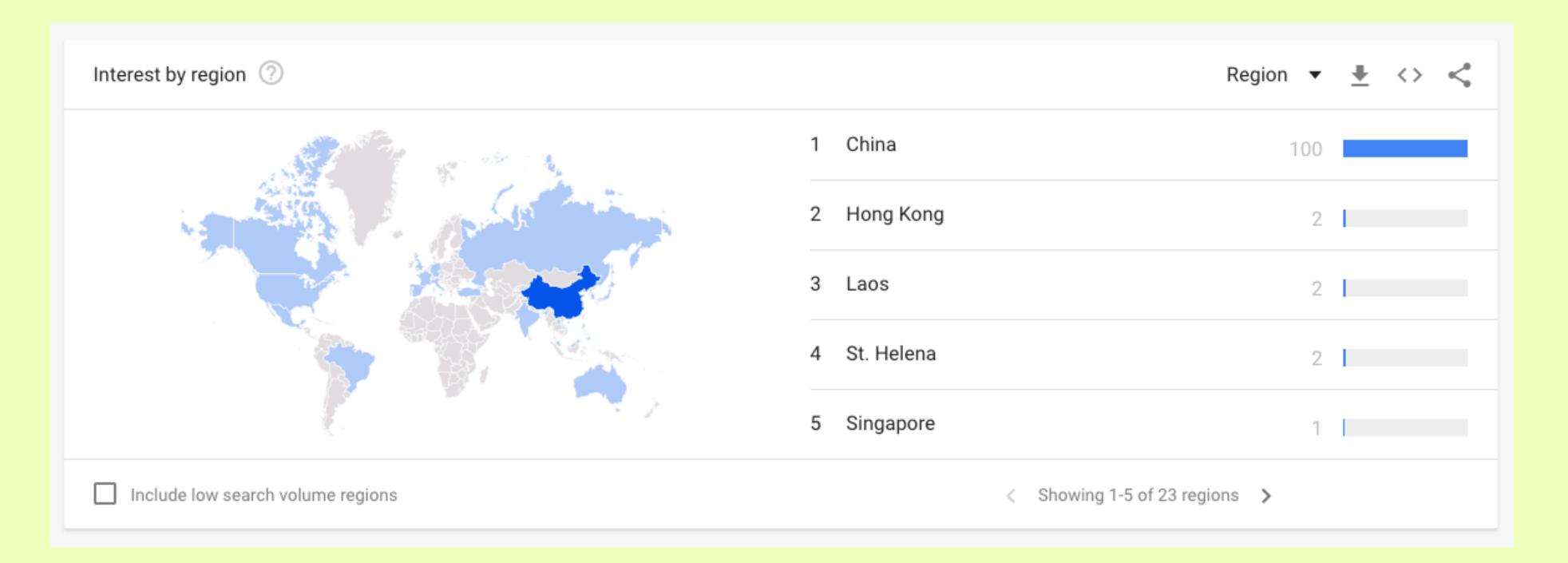


https://trends.google.com/



Growing Reputation

Does it have a global following?



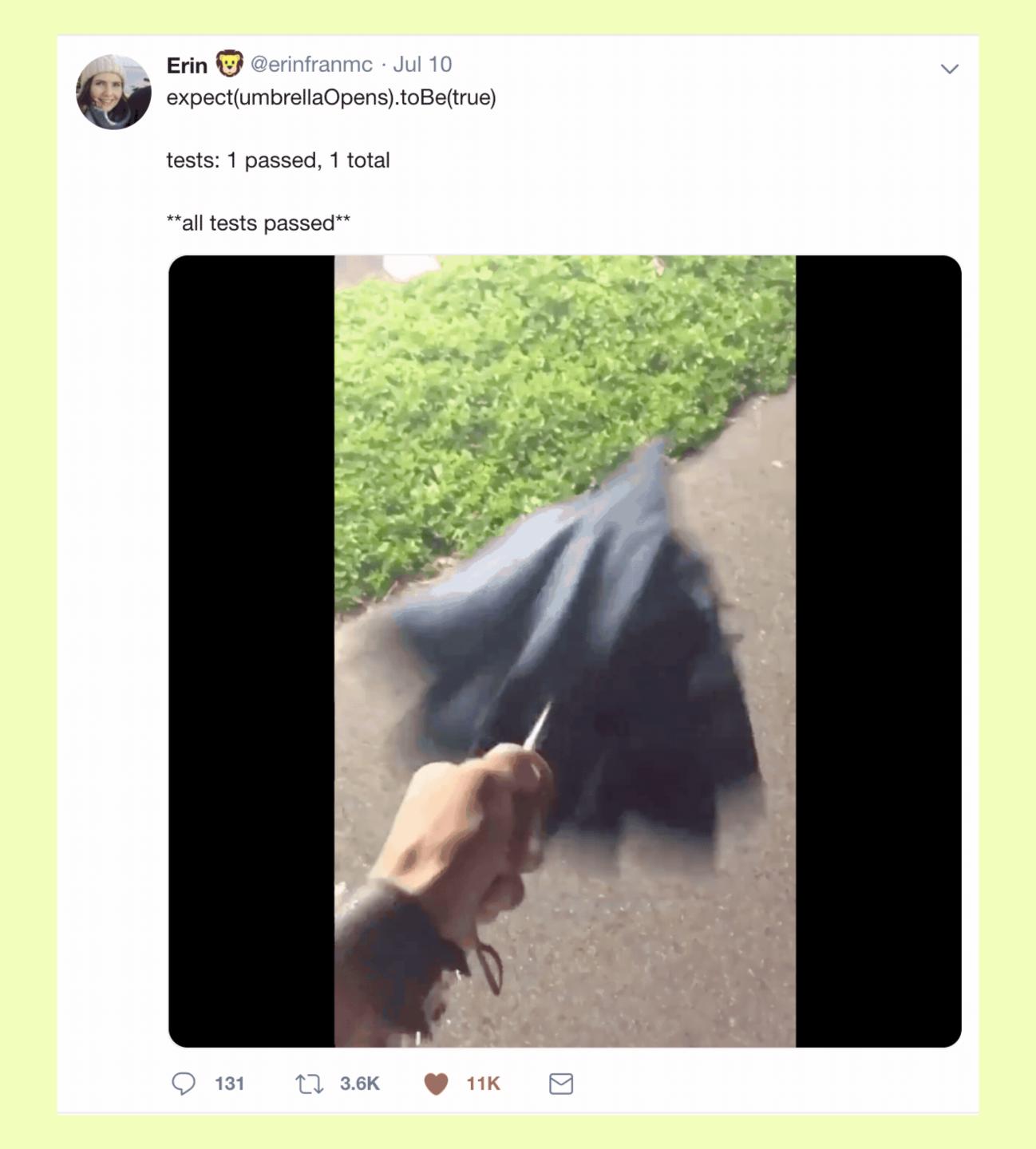
Related queries ②	Rising ▼ <u></u> <> <
1 echarts js	+70%
2 vue echarts	+50%
3 echarts 教程	+50%

Thriving projects should be scalable and maintainable

Scalable and Maintainable

Is the code well tested?

Don't let the bar be does it have tests. Check the tests and understand them



Scalable and Maintainable

Is there a good ratio of maintainers vs contributors?

Don't let maintainers be the bottleneck for contributors

At GitLab, we aim for a ratio of 1:4 maintainers to contributors

Scalable and Maintainable

Is there a regular release cycle? Is it documented?

Bugs happen, security vulnerabilities happen, a clear release process helps everyone trust the project more

Thriving projects should have a good leadership team

Leadership

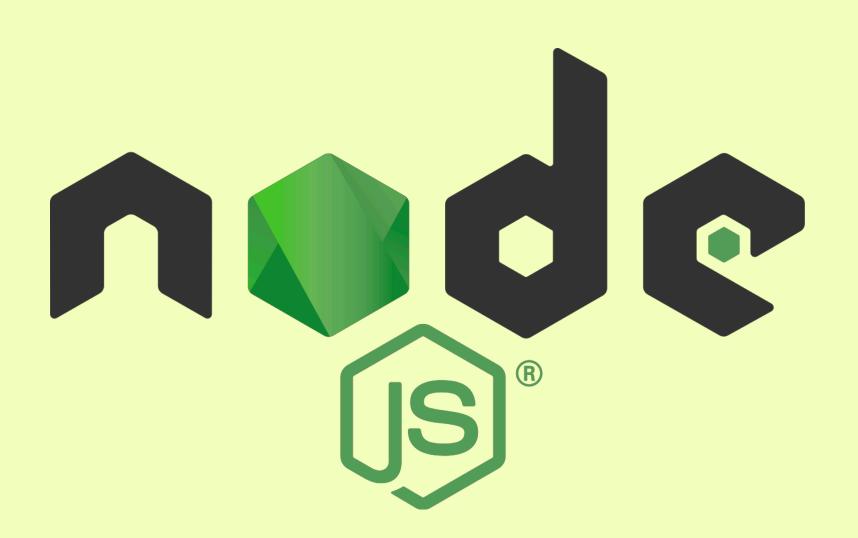
Is there more than one maintainer in case something unforeseen happens?

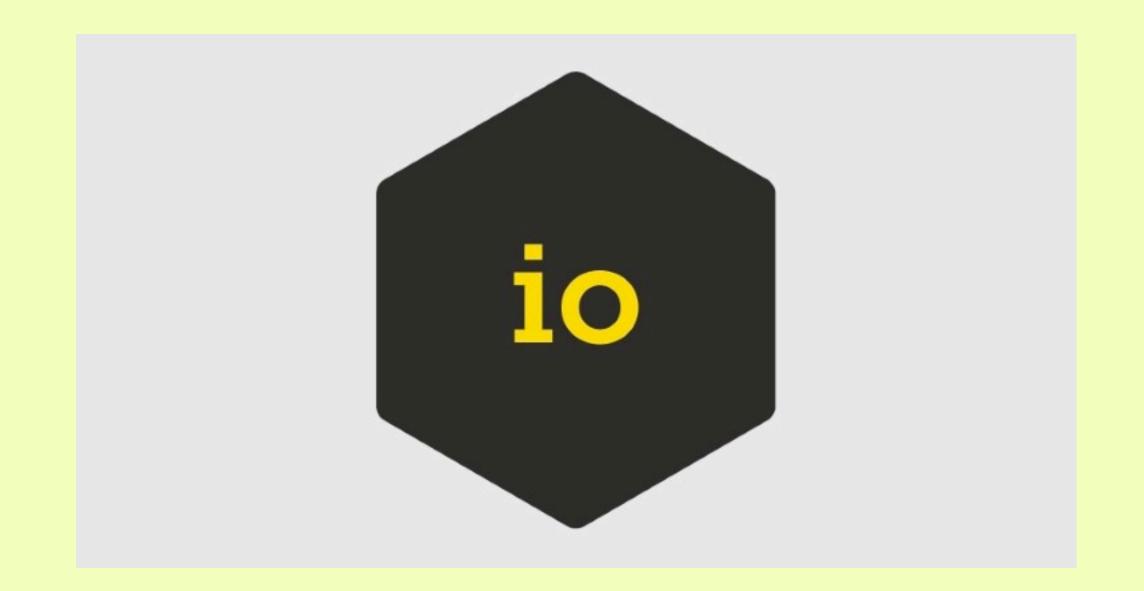
It's a lot of pressure for one maintainer

If something happens to the maintainer, that would greatly negatively impact the project

Leadership

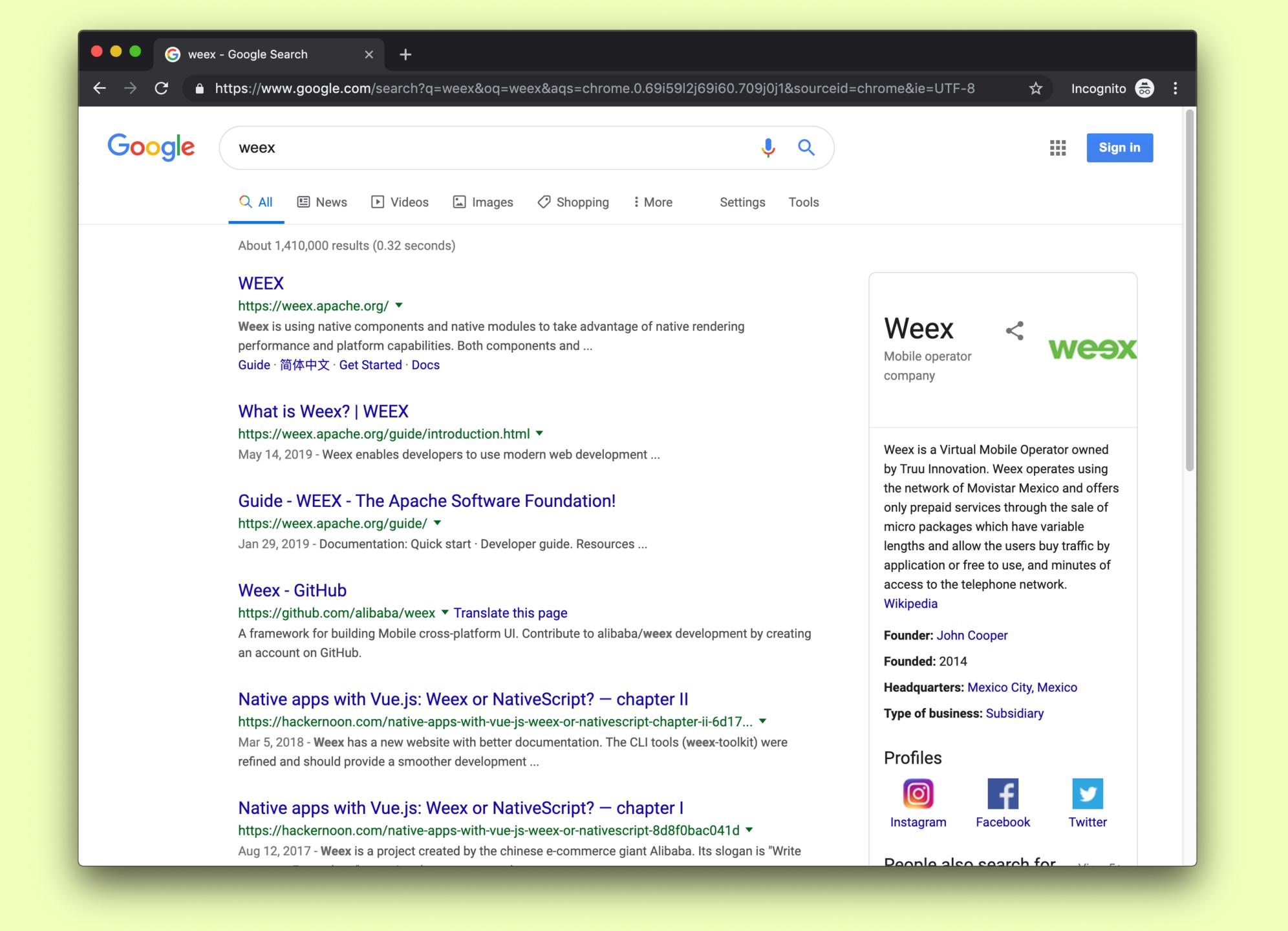
Is the leadership aligned with the community?

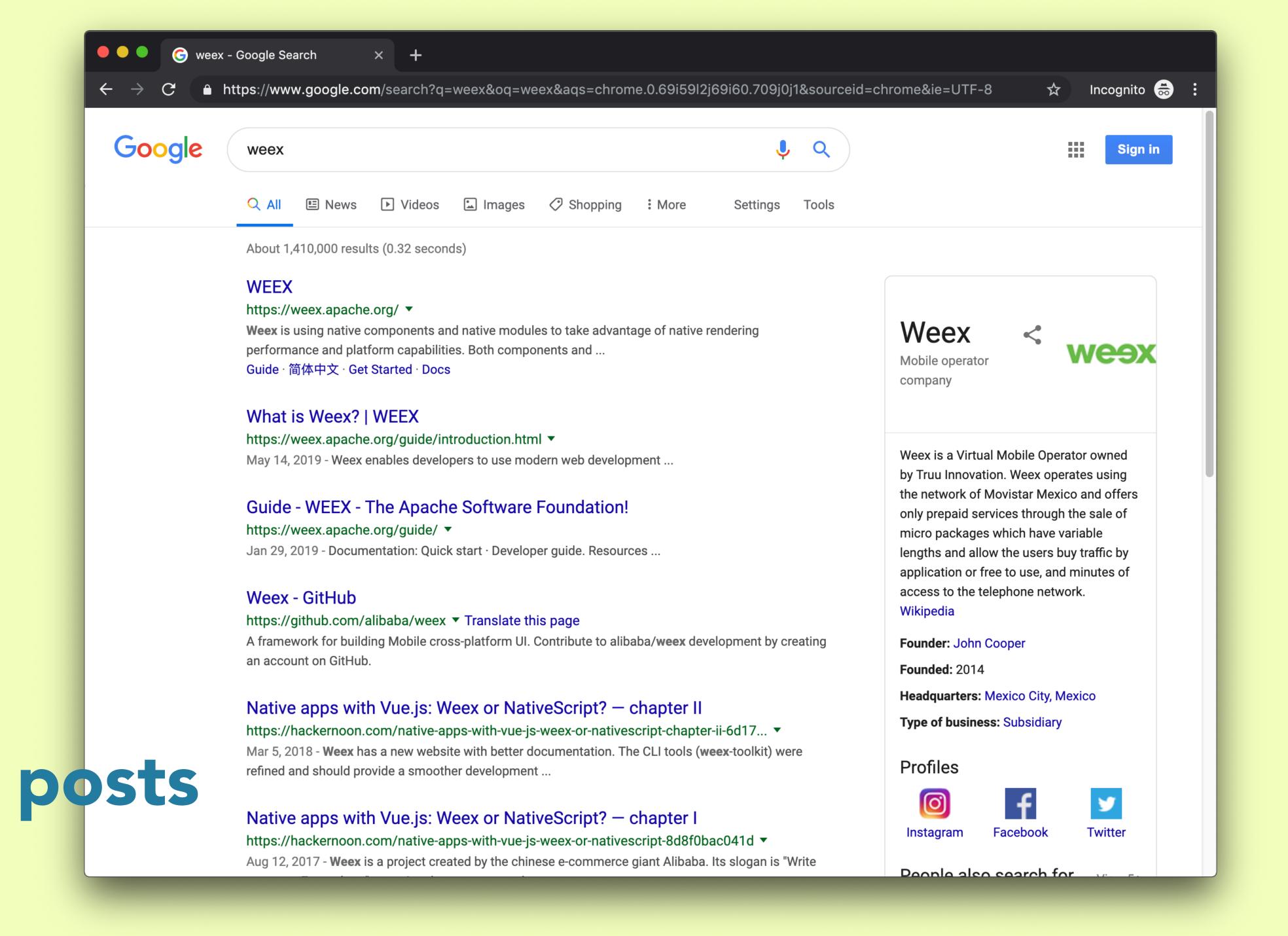


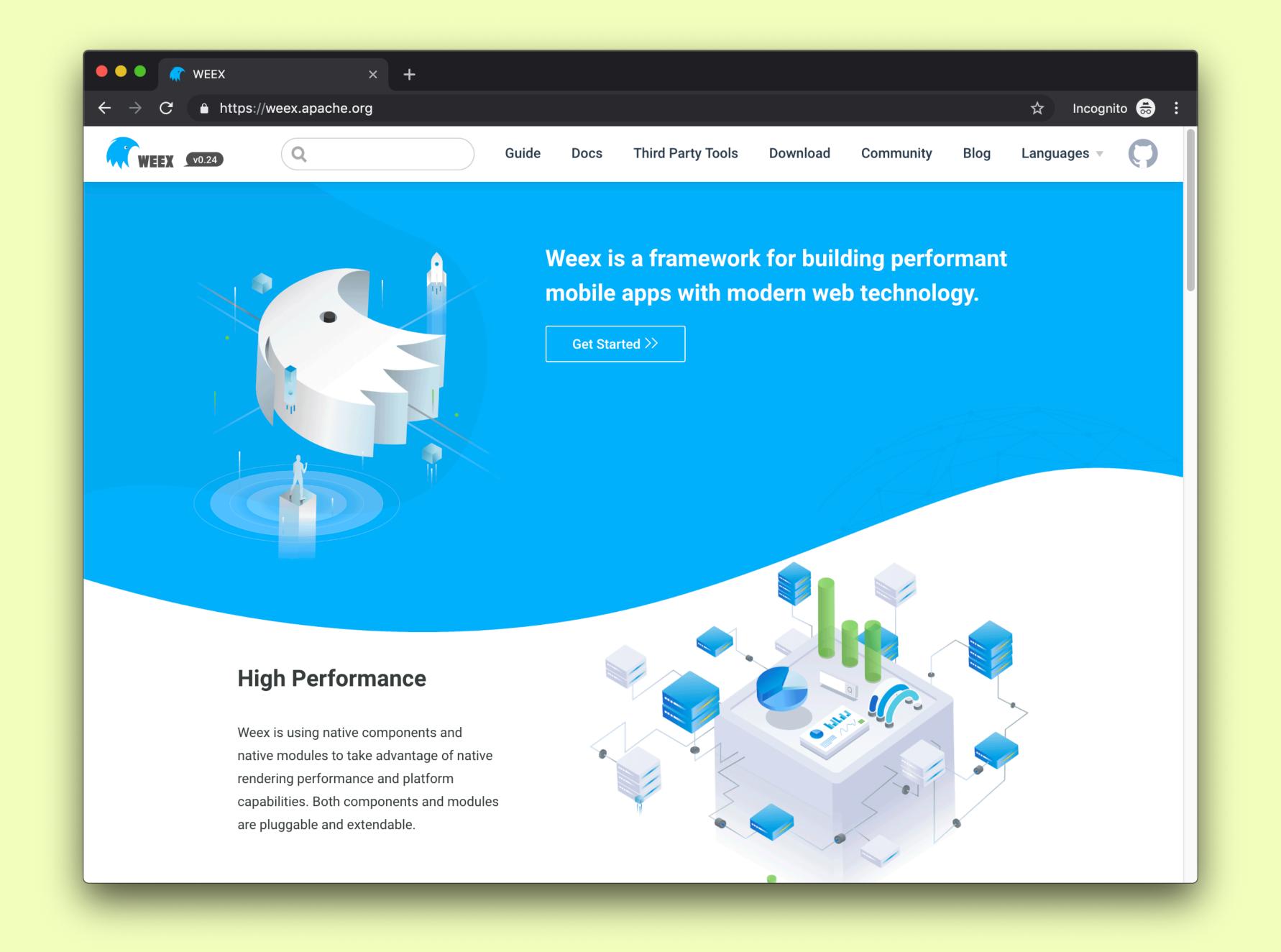


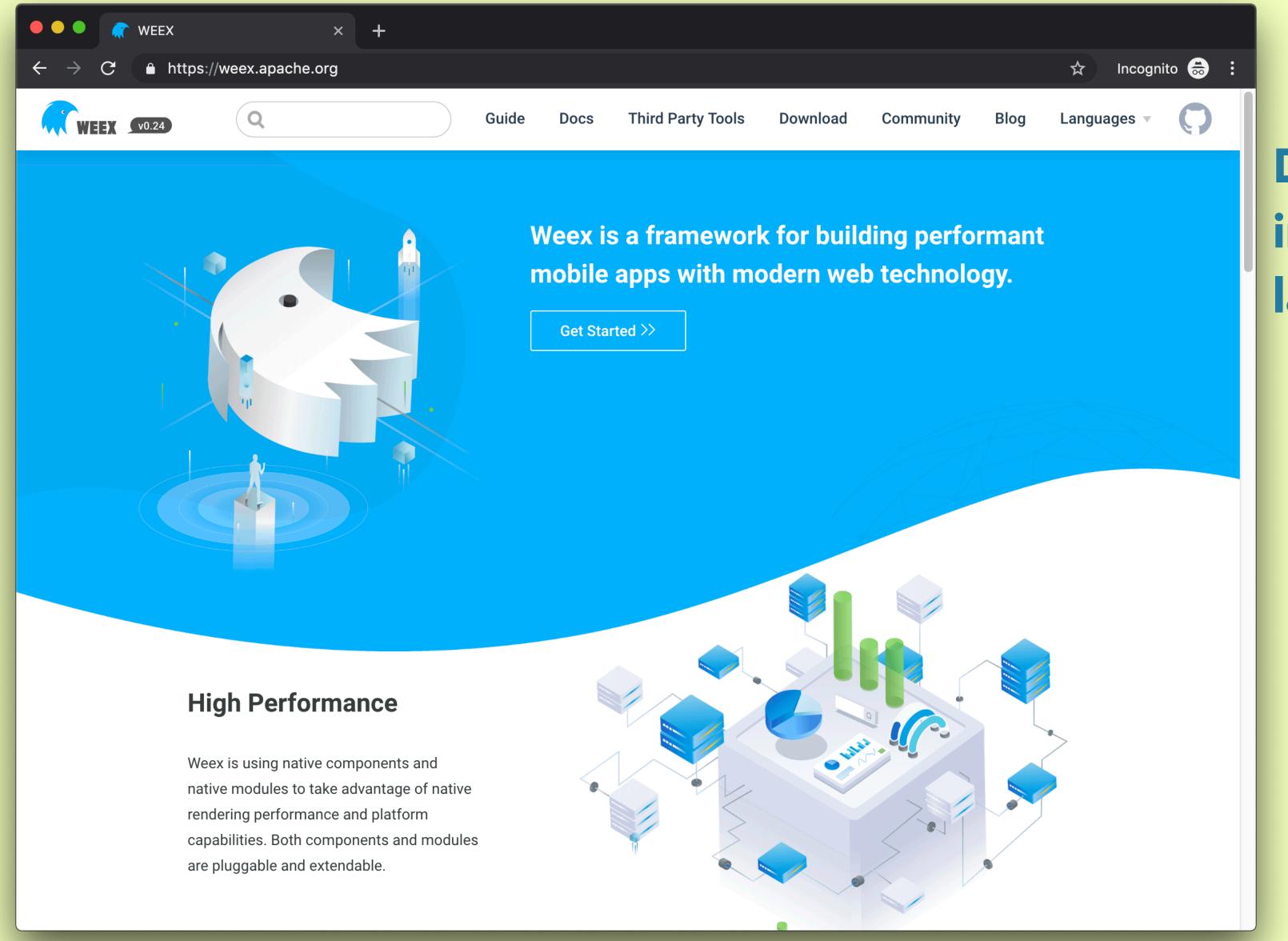
Bottom Line: Project health and future is indicated by many data points

Case Study: Weex

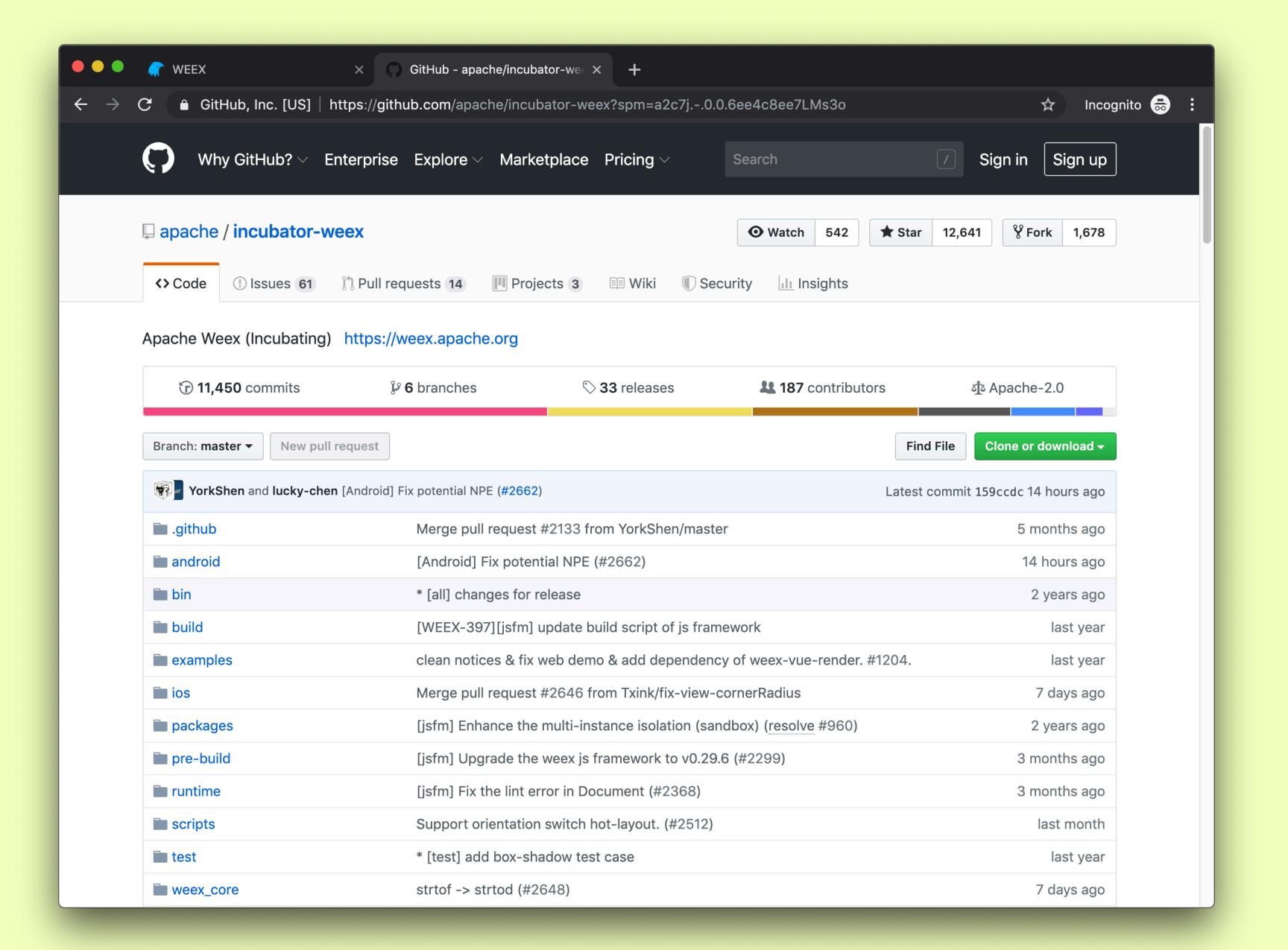


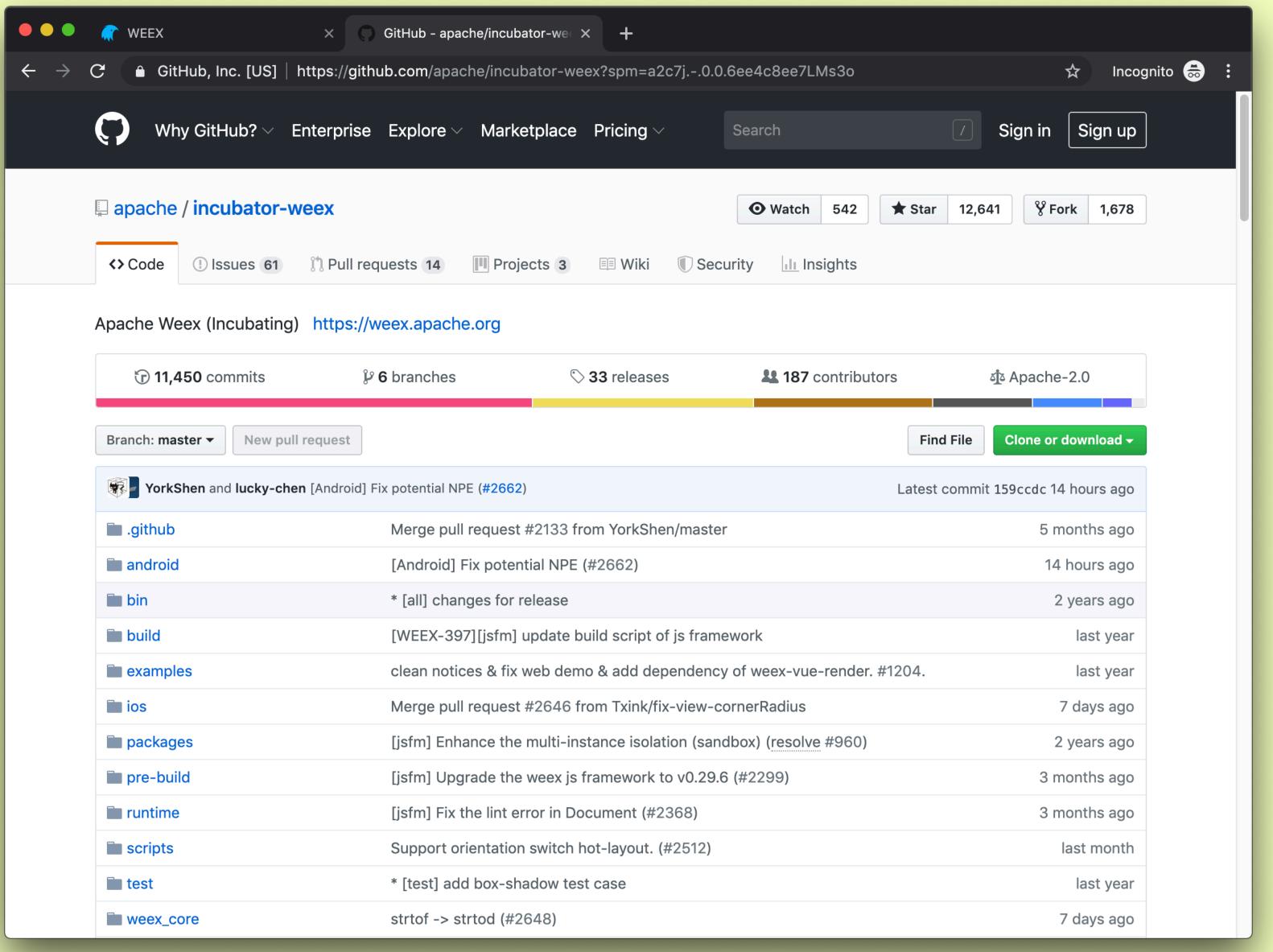






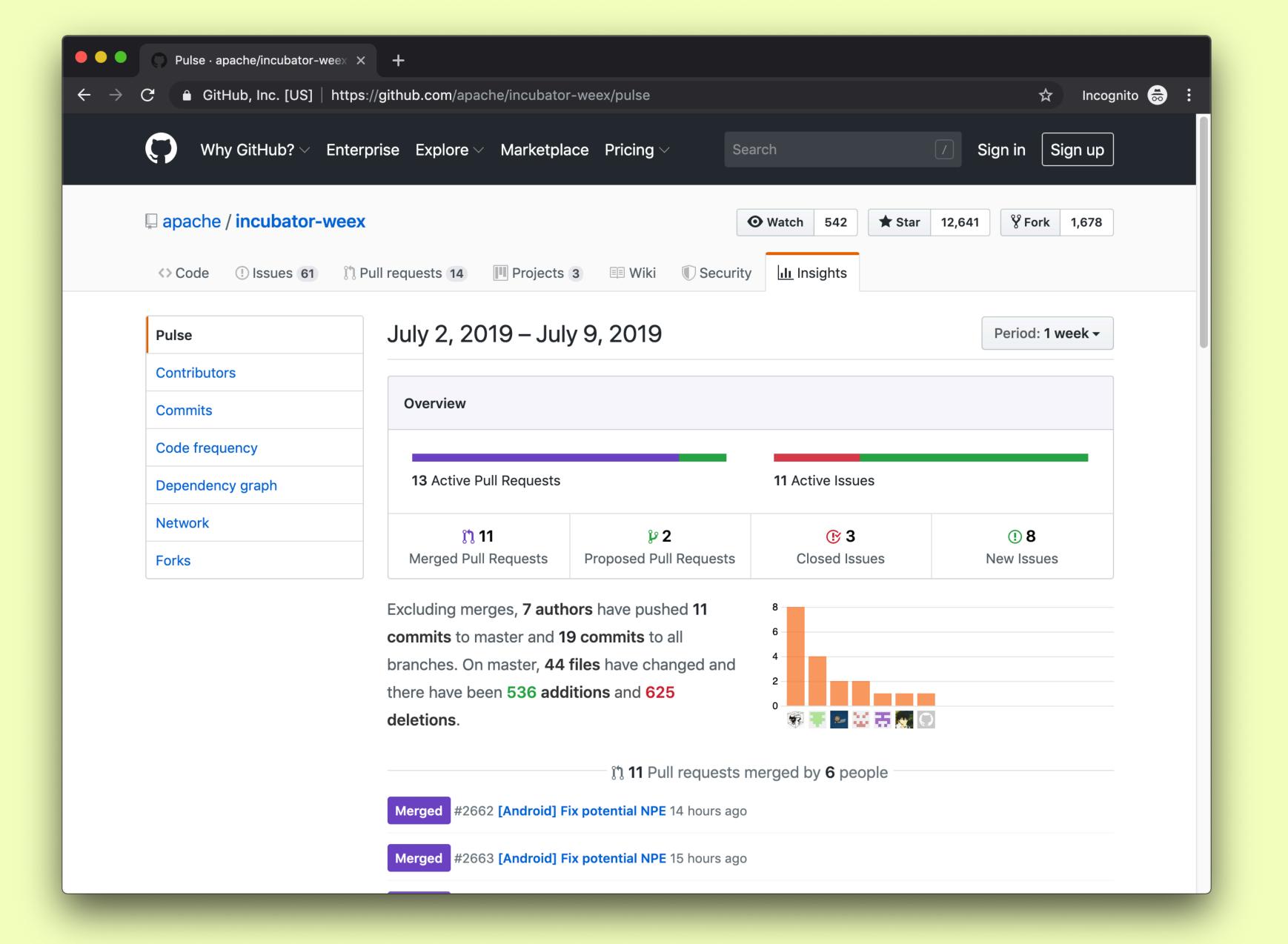
Documentation in multiple languages

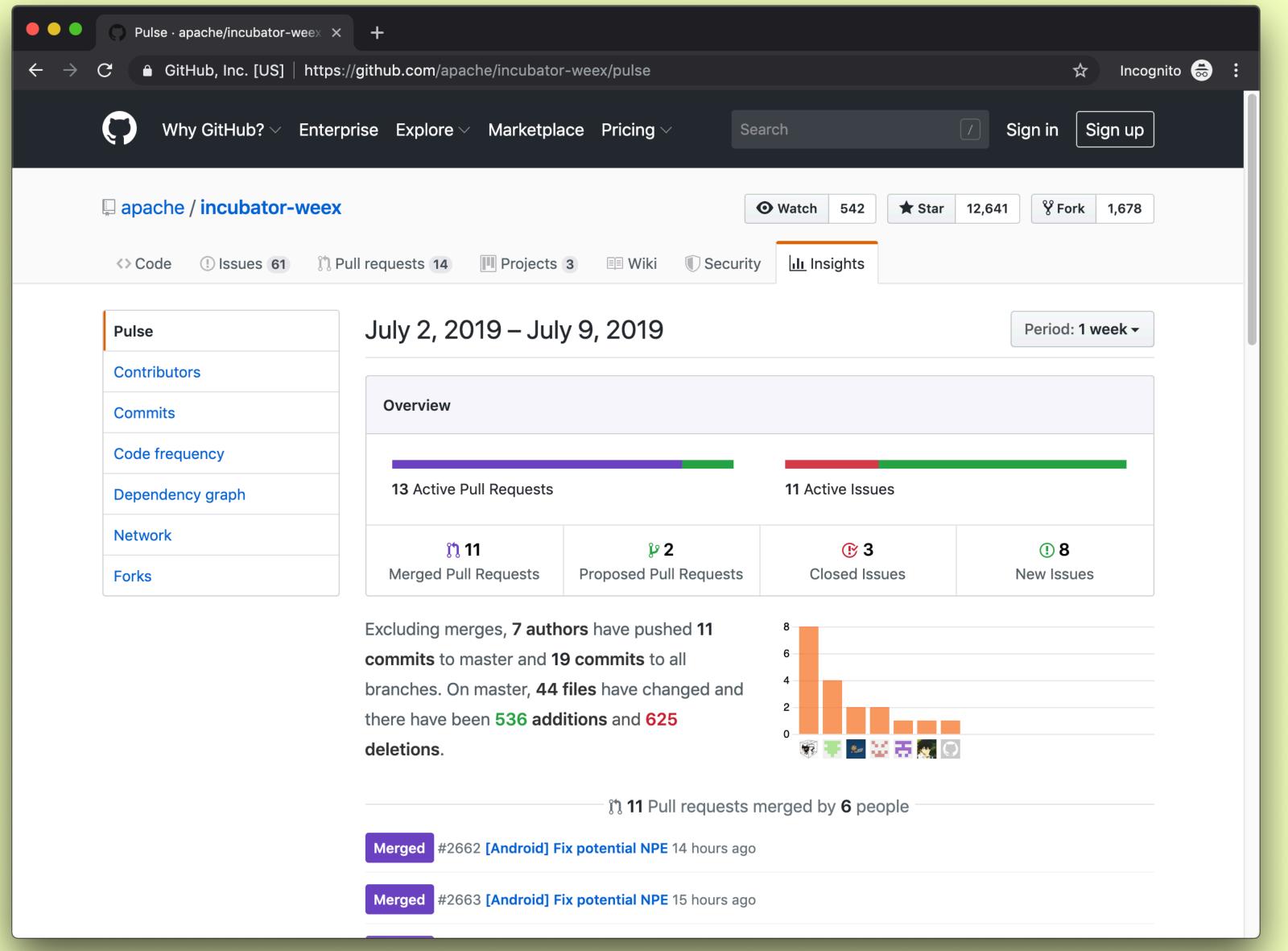




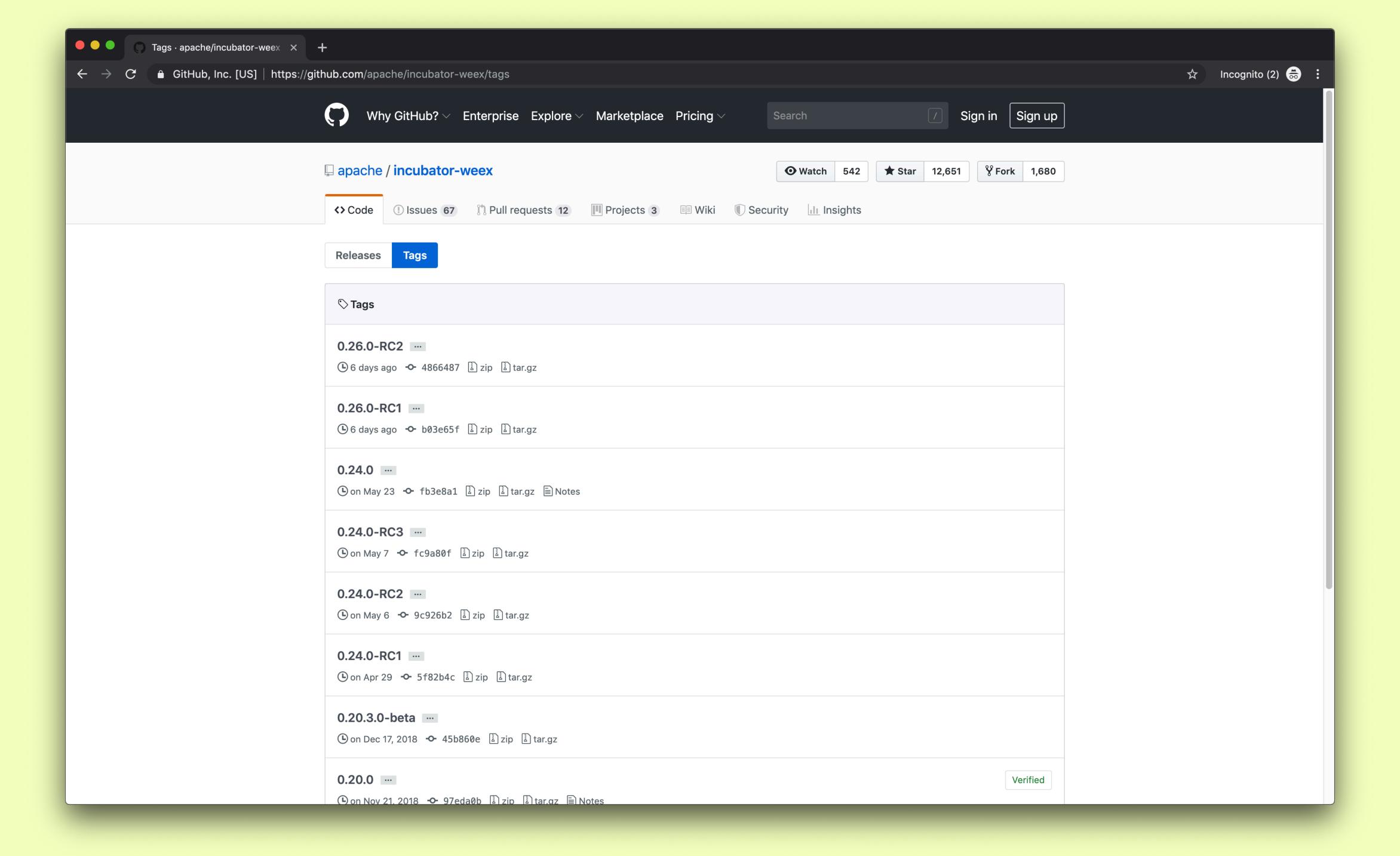
Has license

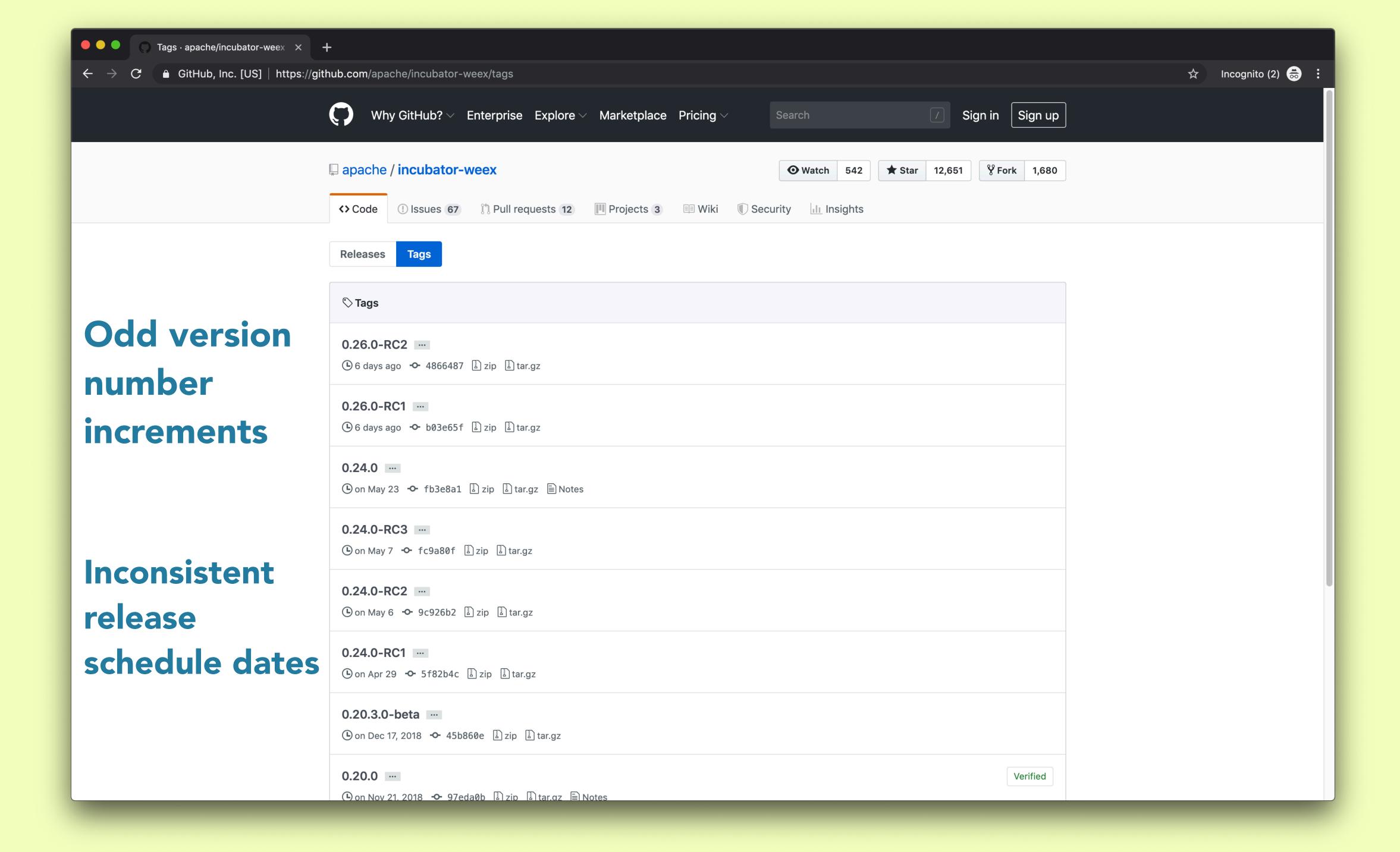
Also had code of conduct (not in screenshot)

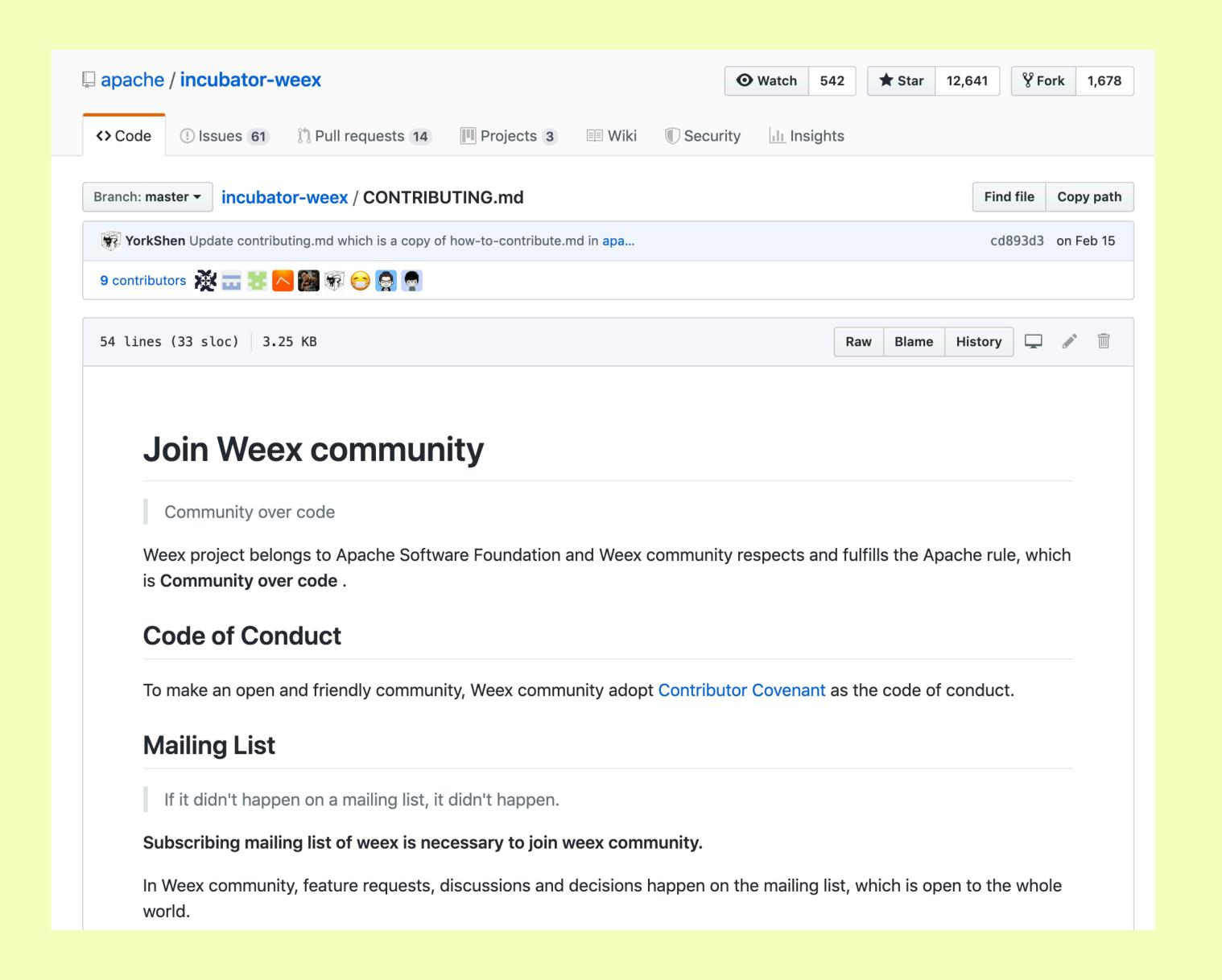




Active PR and issue activity

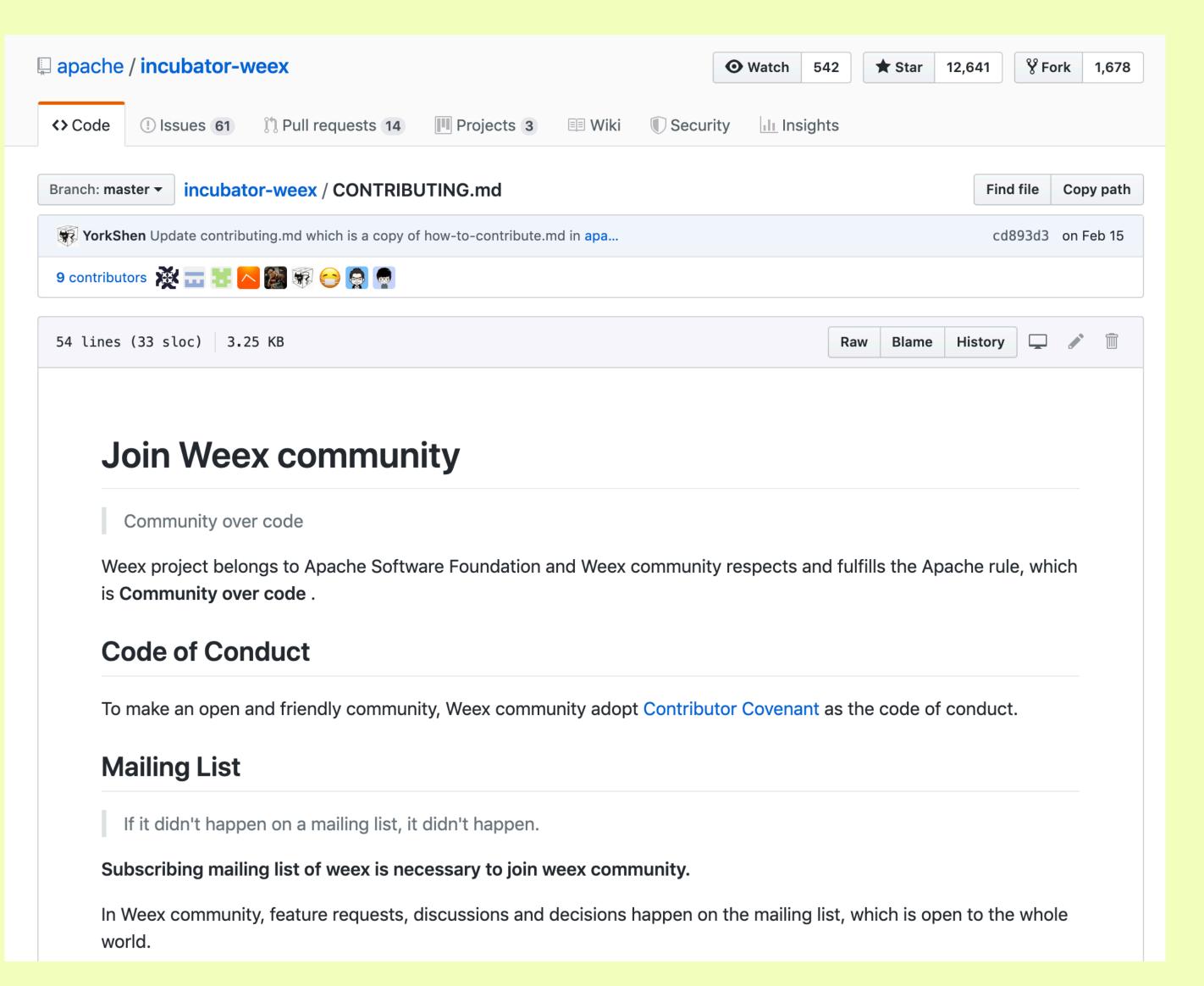


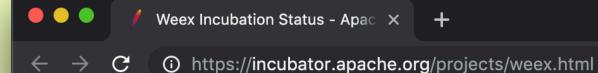




Contribution guide























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- Podling PMC (PPMC)
- Podling Mentor
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- Podling Websites
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- Retirement

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- General FAQ
- Incubator PMC (IPMC)
- IPMC Chair
- Mailing Lists
- Incubator Website

▶ Weex Project Incubation Status

This page tracks the project status, incubator-wise. For more general project status, look on the project website.

▶ Description

Weex is a framework for building Mobile cross-platform high performance UI. Weex enables developers to use Weblike syntax to build iOS, Android and Web UI with a single codebase.

- 2018-12-10 Release 0.20.0
- 2018-10-08 Release 0.19.0
- 2018-08-04 New Committer, Jonathan Dong
- 2017-10-19 New Committer, wentao shi
- 2017-09-13 New Committer, gurisxie
- 2017-08-09 New Committer, Hanks
- 2017-06-16 New Committer, Jianfeng Li
- 2017-06-08 First Release, 0.12.0
- 2017-04-24 New Committer, HaiBo Song
- 2017-04-18 New Committer, Tancy
- 2017-04-5 New Committer, TianYi Ma
- 2017-02-23 New Committer, Yuan Shen
- 2016-11-30 Project enters incubation.

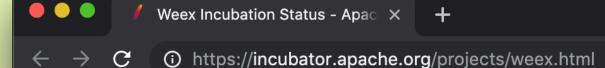
▶ Project info

- link to the main website
- link to the page(s) that tell how to participate (Website, Mailing lists, Bug tracking, Source code)
- link to the project status file (Committers, non-incubation action items, project resources, etc)

If the project website and code repository are not yet setup, use the following table:

item	type	reference
Website	www	http://weex.incubator.apache.org/
	wiki	•
Mailing list	dev	dev @ weex.incubator.apache.org
	commits	commits @ weex.incubator.apache.org

ASF























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- 2017-02-23 New Committer, Yuan Shen
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New committers are being added to project

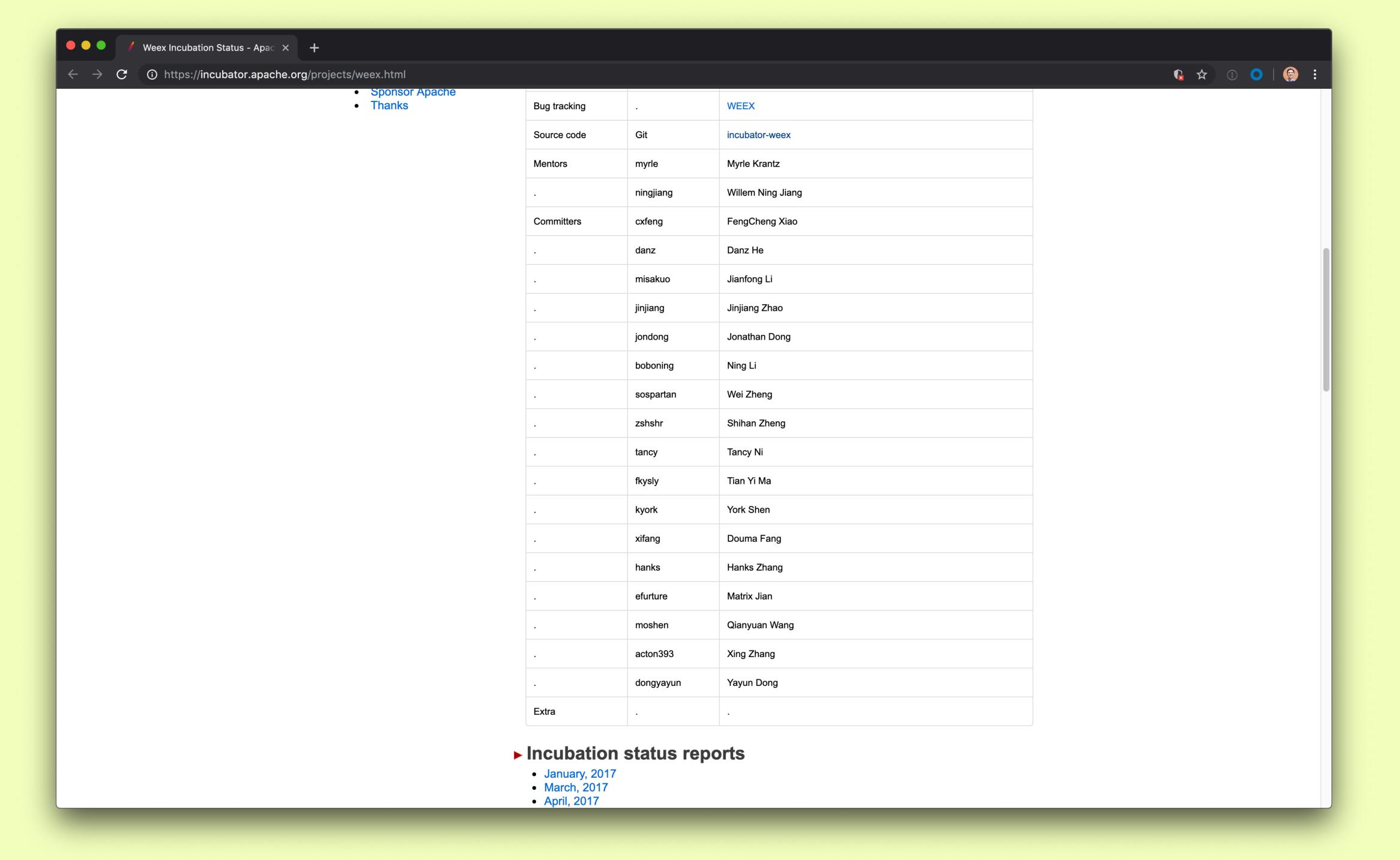
► Project info

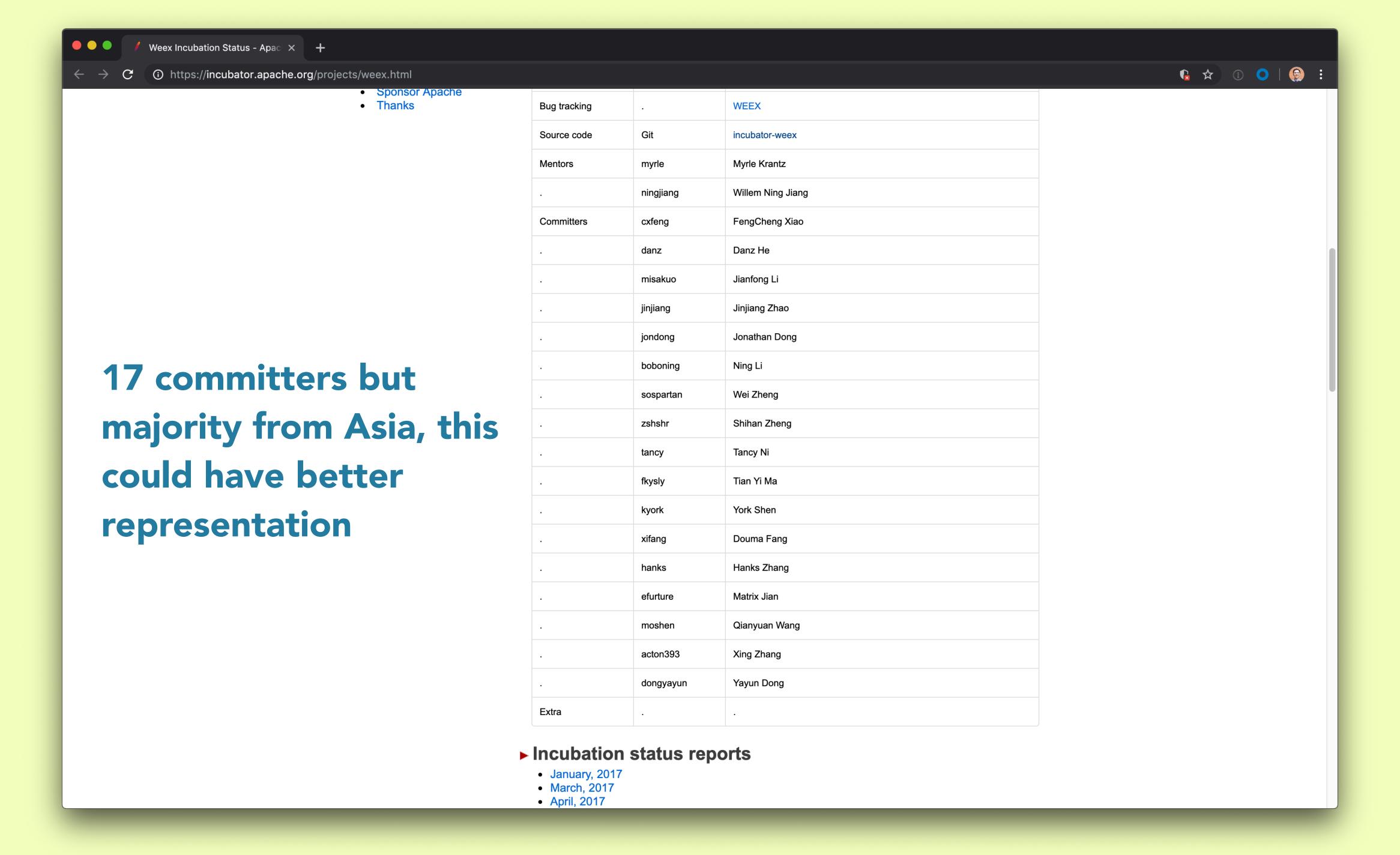
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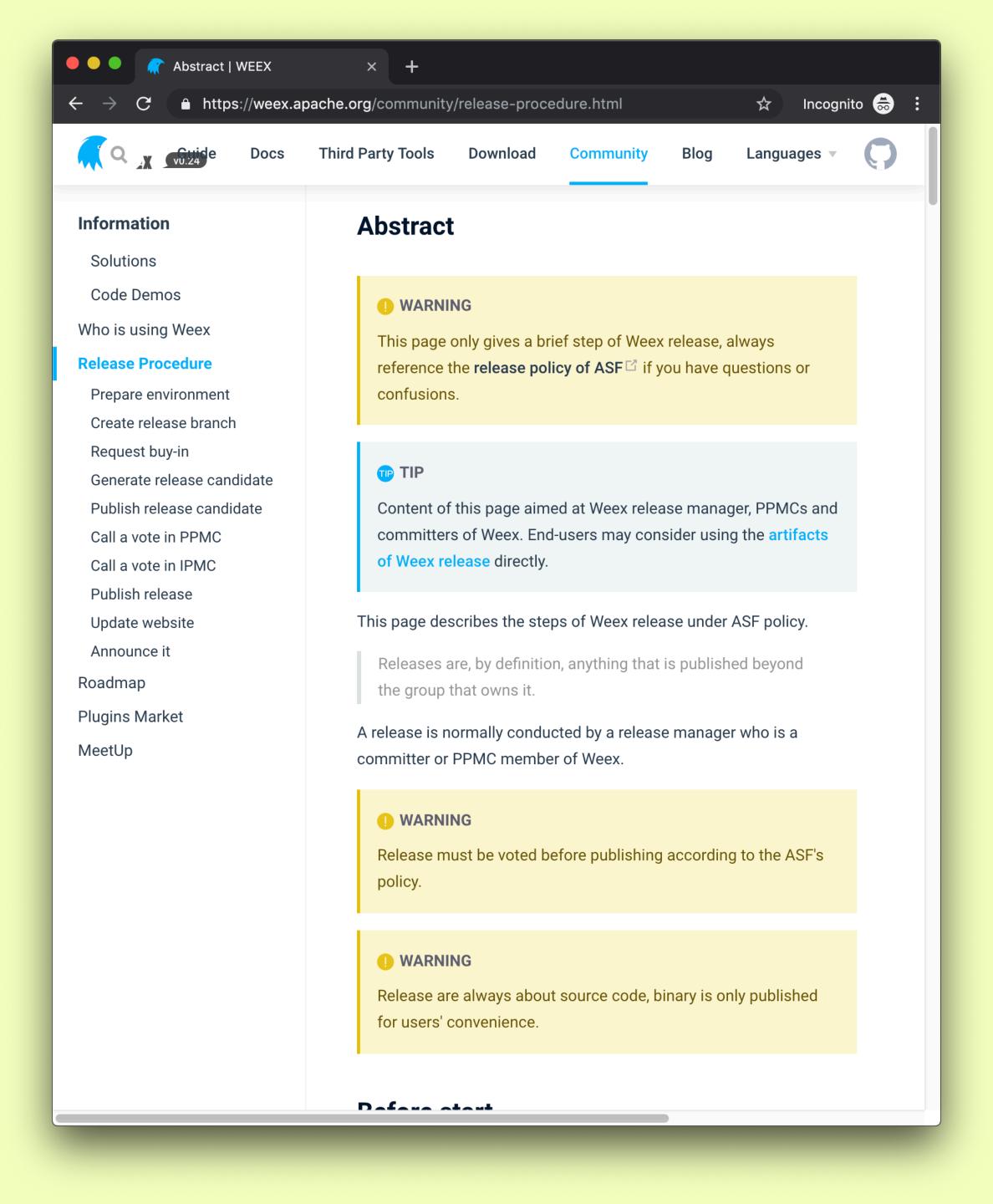
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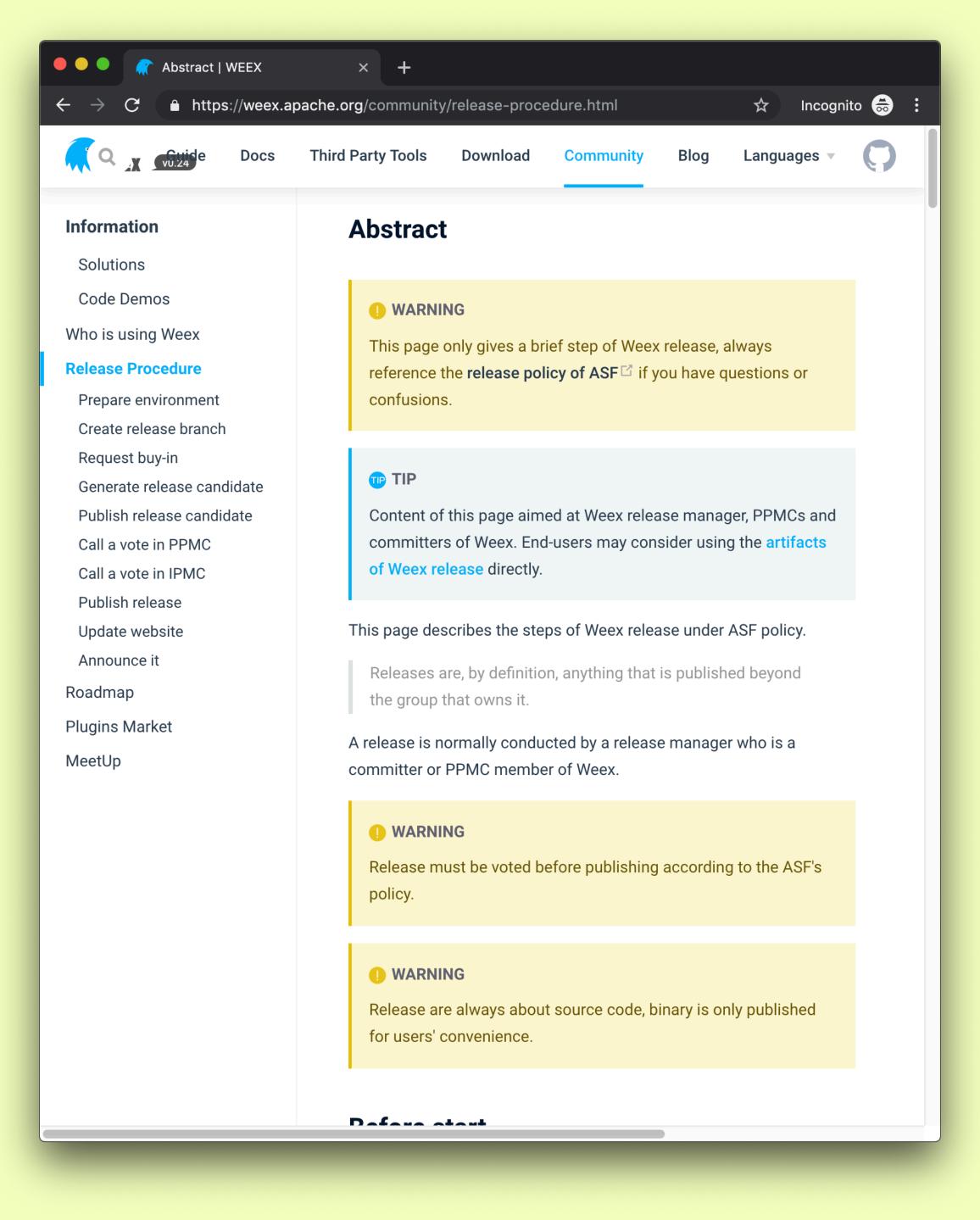
item	type	reference
Website	www	http://weex.incubator.apache.org/
	wiki	
Mailing list	dev	dev @ weex.incubator.apache.org
	commits	commits @ weex.incubator.apache.org

ASF









Clear release process

Yes, they are helpful, maybe one more mentor would be better.

Need more committers outside of Alibaba group

☆ ① ○ | 💮 :

Working towards growing the community

[X](weex) Willem Ning Jiang Comments:

Signed-off-by:

that need to be addressed.

My evaluation: A-

Thank you