git & GitHub

for Beginners

le wagon

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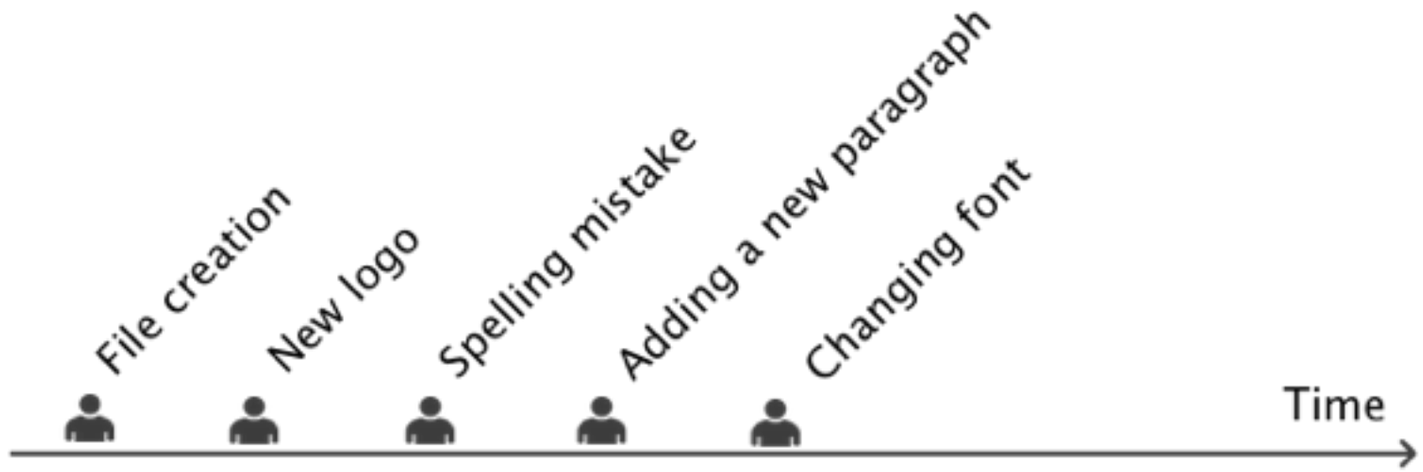
Knowledge worker

We create and edit documents (text, images, etc.)

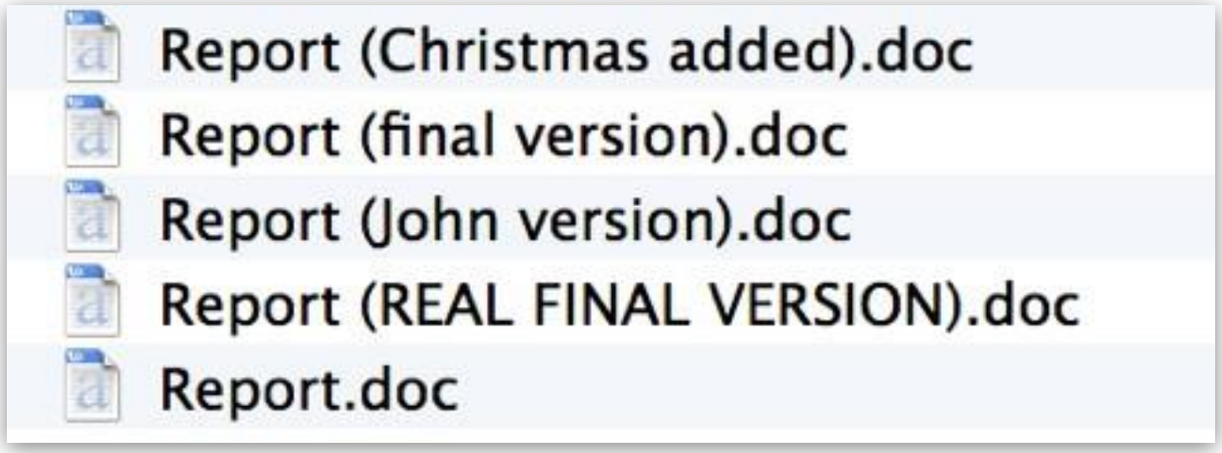
Everyday workflow

1. Create a file
2. Save it
3. Edit it
4. Save it again
5. etc.

File life


File creation
New logo
Spelling mistake
Adding a new paragraph
Changing font
Time

Manual version control

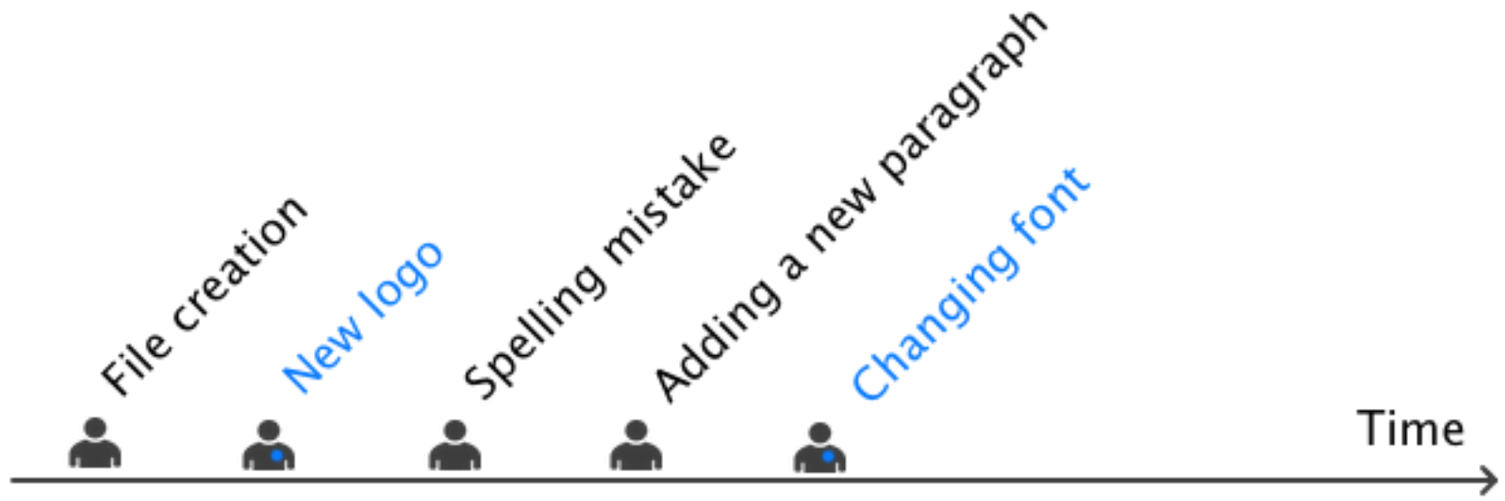


Can we automate this?

For each document version, we need to know

1. **When the file was modified**
2. **What changed**
3. **Why it was modified**

There’s more, teams



Hence one more question

For each document version, we need to know

1. When the file was modified
2. What changed
3. Why it was modified
4. **Who did the change**

In a nutshell

We want a tool which

1. **tracks document version**
2. **keeps an history of document changes**
3. **foster team work**

git

Set up

Download & install git at http://git-scm.com/

Your identity

```
$ git config --global user.name "Sebastien Saunier”
$ git config --global user.email "seb@lewagon.org"
```

Basic commands

Starting

```
$ mkdir new_project
$ cd new_project
$ git init
```

Status

git can tell you if your folder has some modified files (dirty)

```
$ git status
```

Commit

2-steps process

```
# Select which file to add to the commit.
$ git add <file_1_which_has_been_modified>
$ git add <file_2_which_has_been_modified>

# Take a snapshot of what is in the staging area.
$ git commit --message "A meaningful message about this change"
```

Diff

If git status tells you something changed, you can inspect exactly what changed:

```
$ git diff
$ git diff <a_specific_file_or_folder>
```

Log

Show commit history with

```
$ git log
```

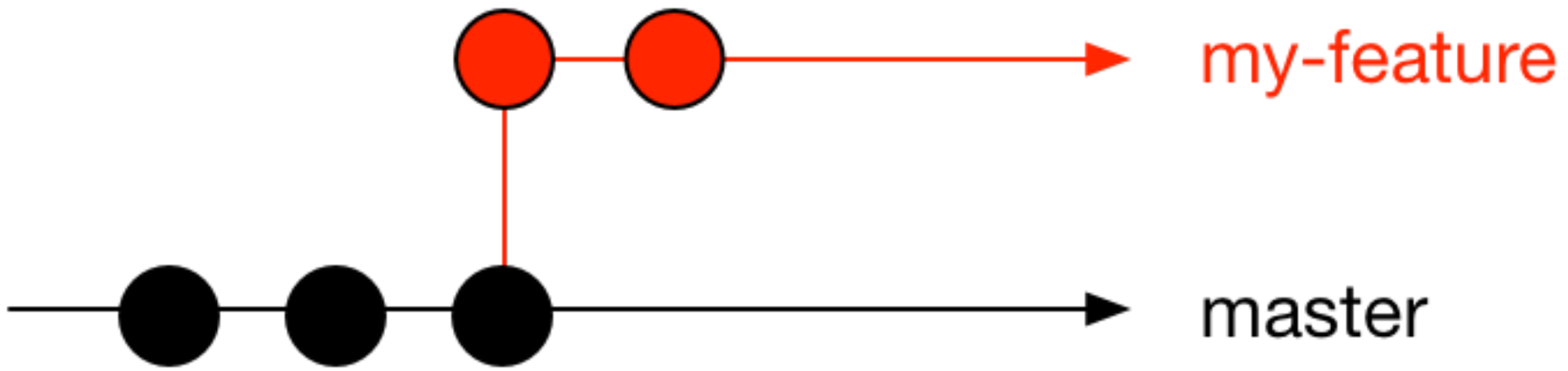
Branching

One feature = One branch

Branch

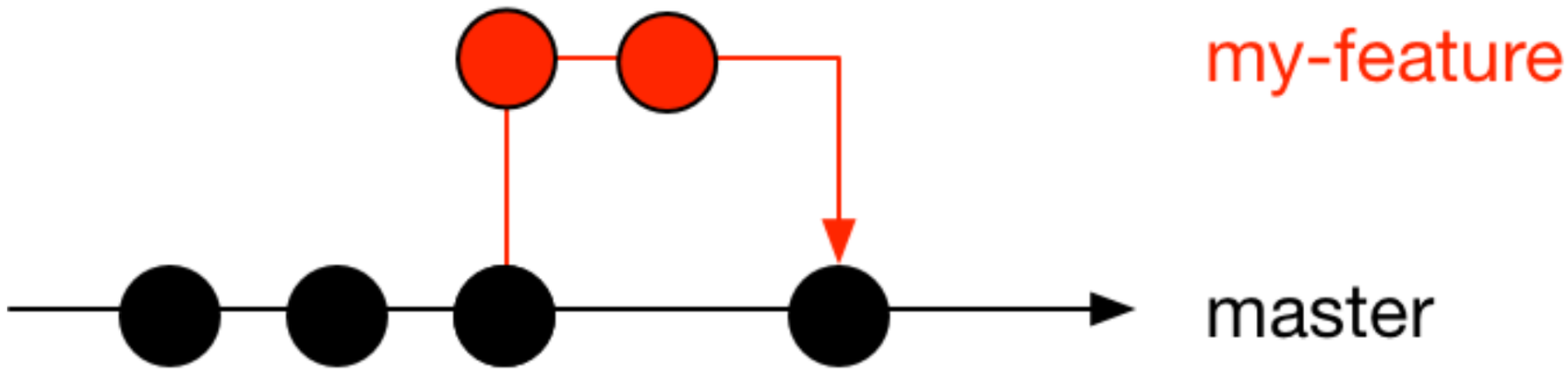
```
$ git branch my-feature
```

Working in the Branch



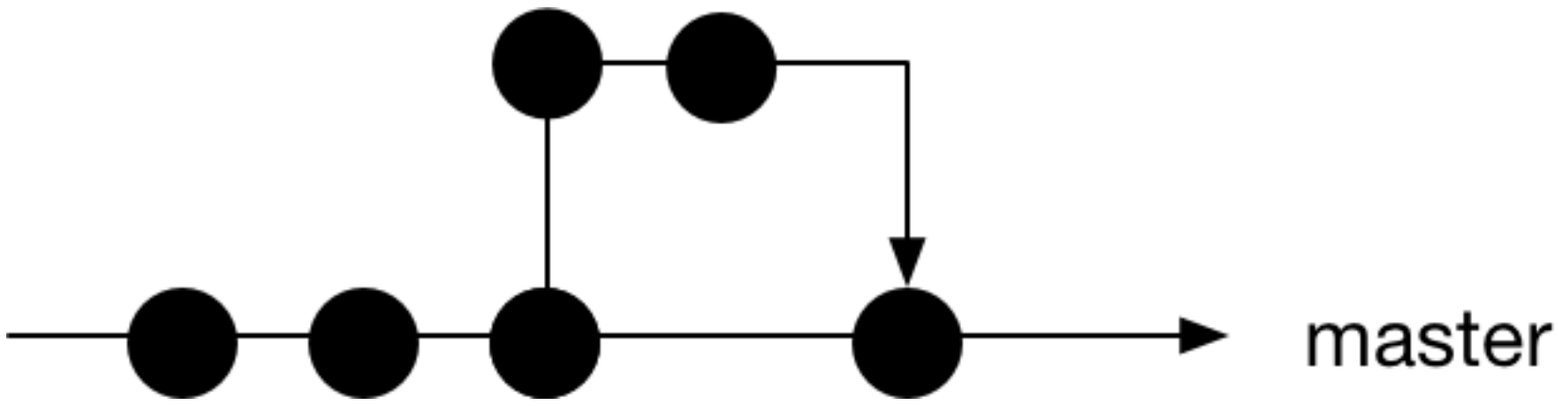

```
$ git checkout my-feature
$ git commit (x2)
```

Merge




```
$ git checkout master
$ git diff master..my-feature
$ git merge --no-ff my-feature
```

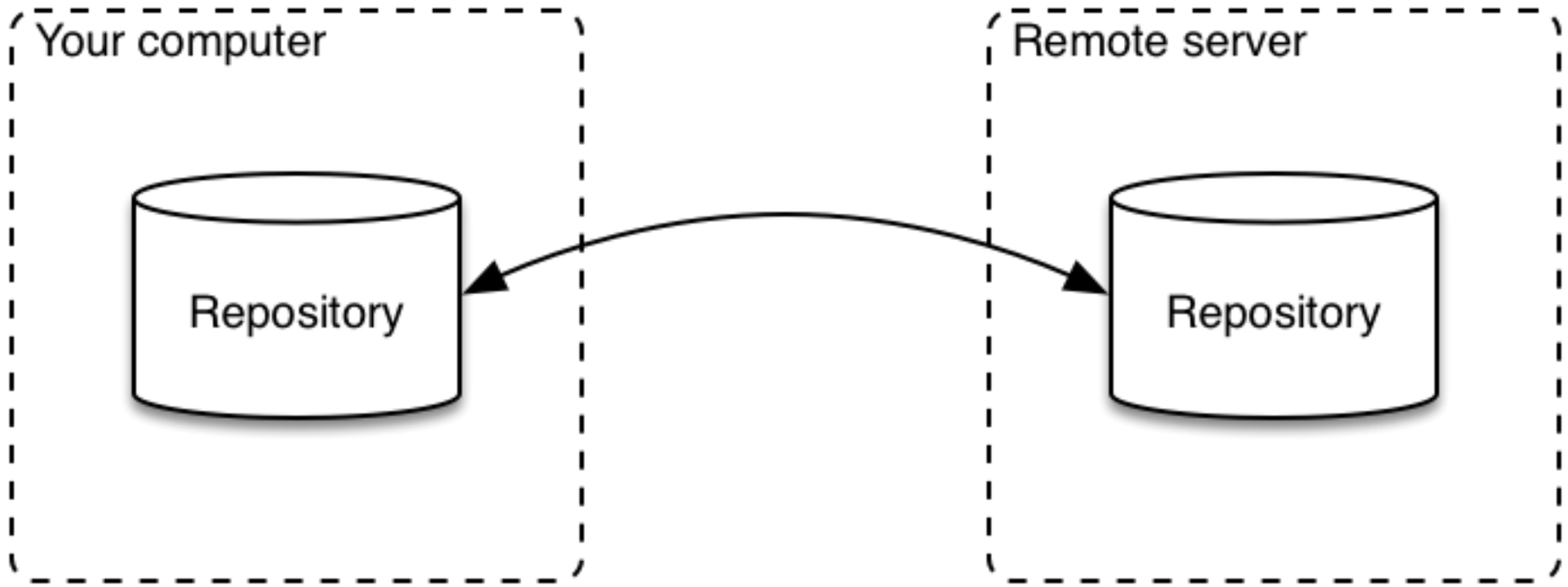
Clean up




```
$ git branch -d my-feature
```

Start Over

Remote


Your computer
Repository
Remote server
Repository

GitHub

Bitbucket

GitLab

We need a remote!

Go to GitHub, create a repo: https://github.com/new

```
$ git remote add origin https://github.com/<user>/<project>.git
```

Push

Share the code with your team, and the world

```
# Generic command
$ git push <remote> <branch>

# What we'll use
$ git push origin master
```

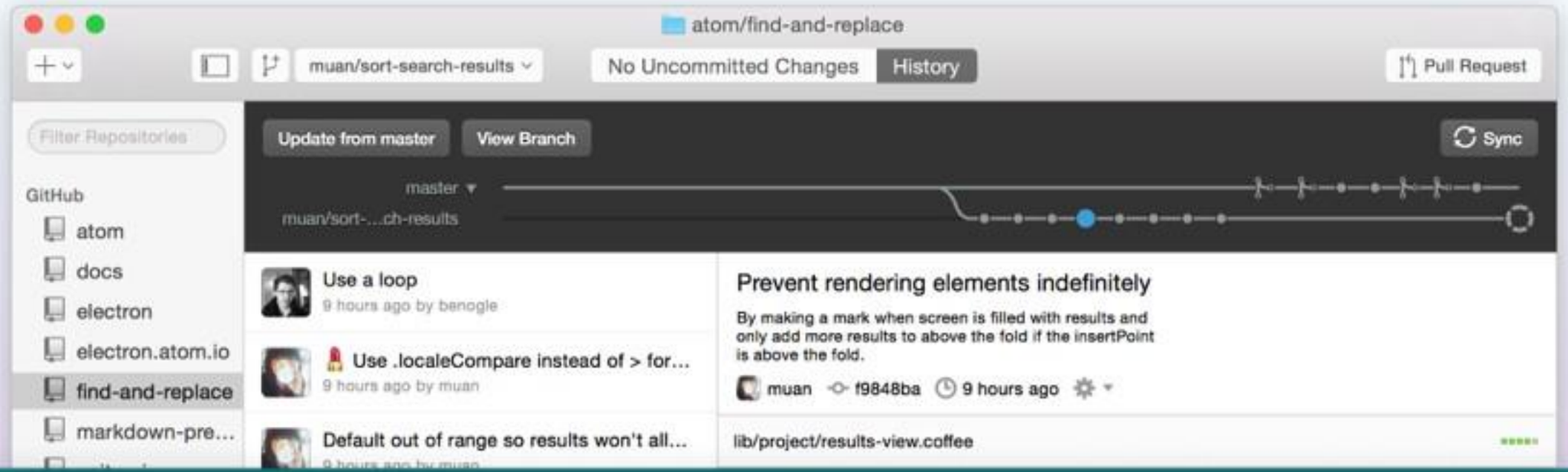
Pull

```
# Generic command
$ git pull <remote> <branch>

# What we'll use
$ git pull origin master
```

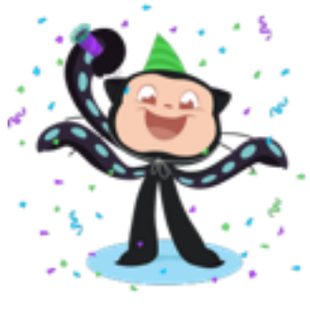
Github Desktop app

desktop.github.com

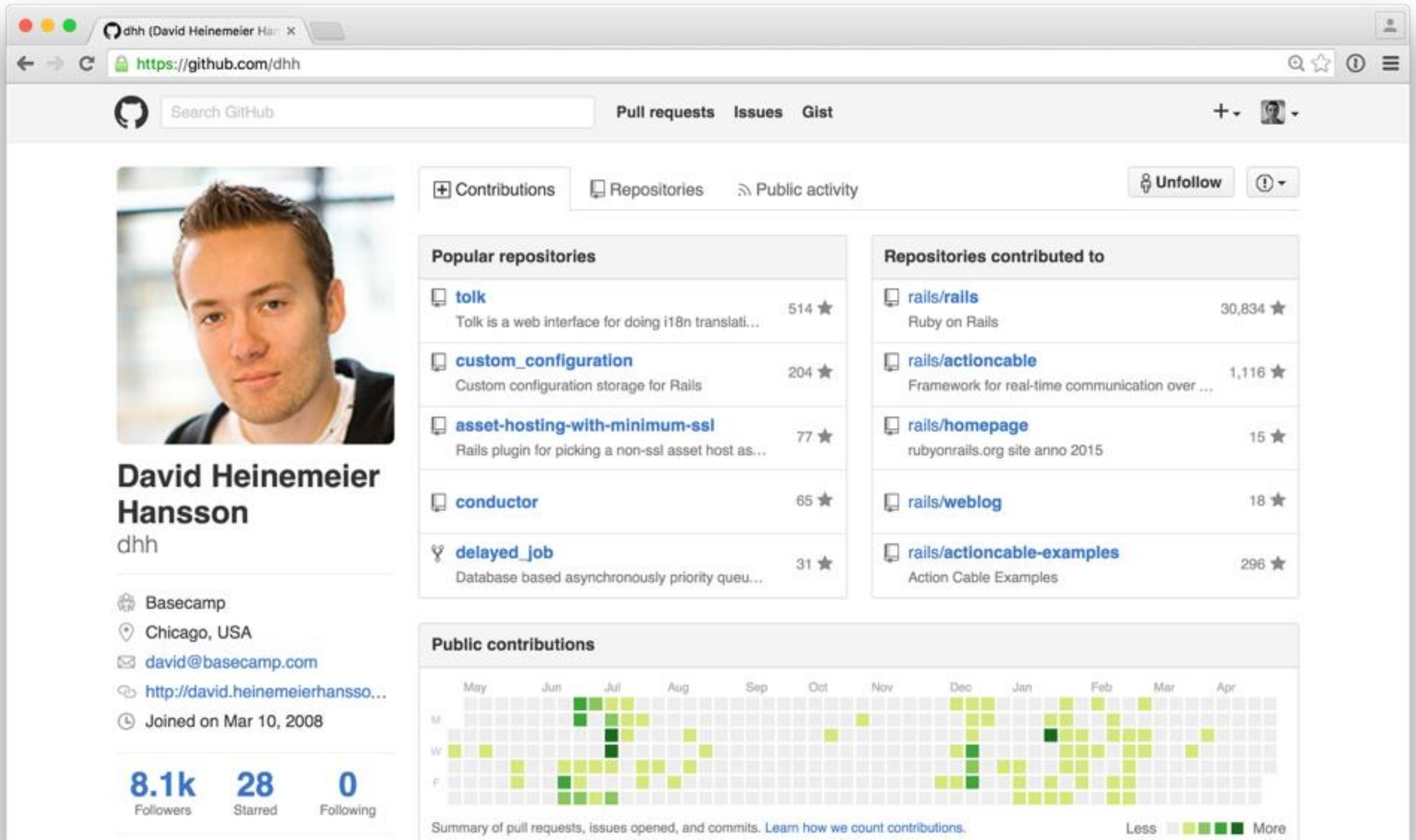


Your GitHub workflow in one native app

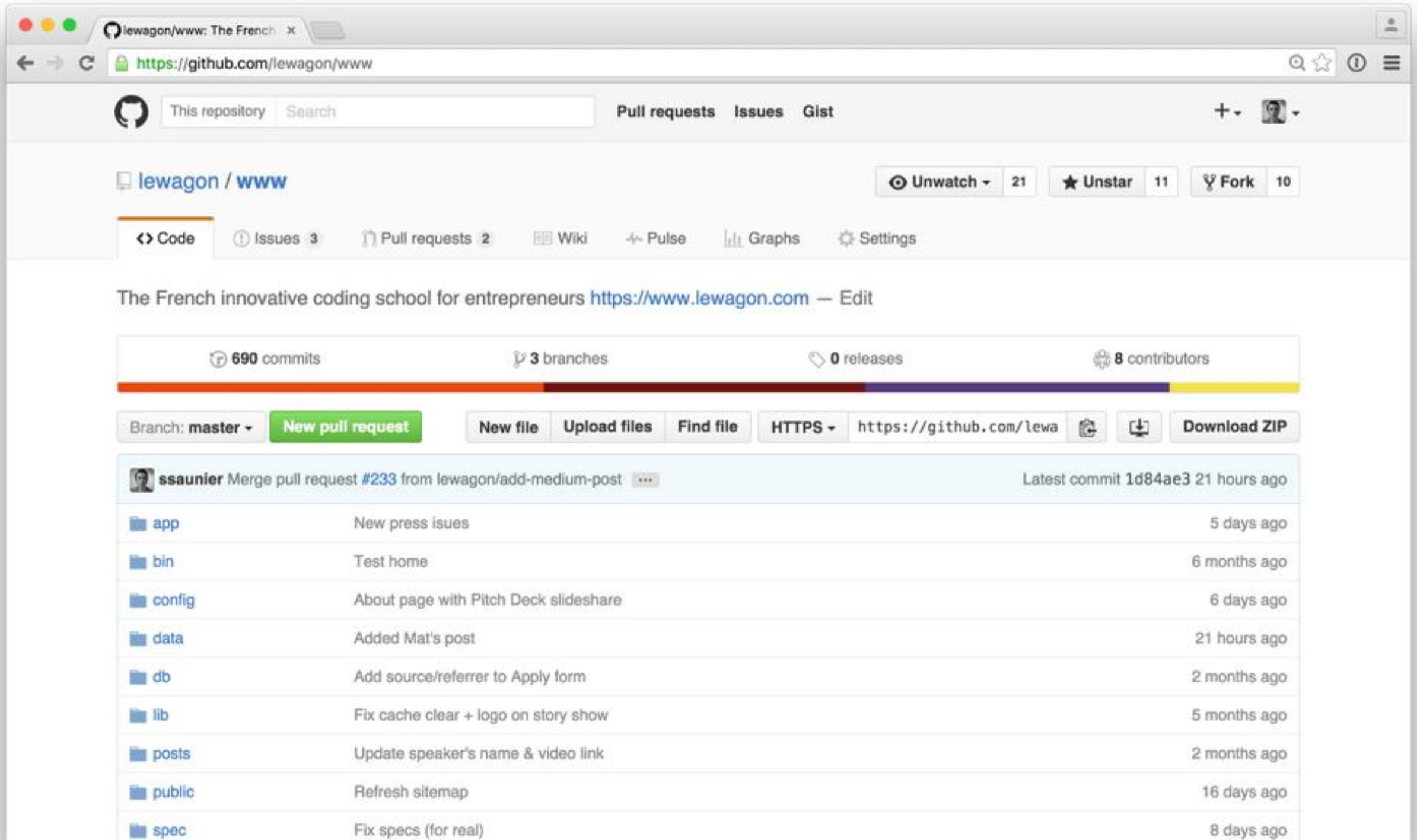
Clone repositories → Create branches → Commit changes → Share code



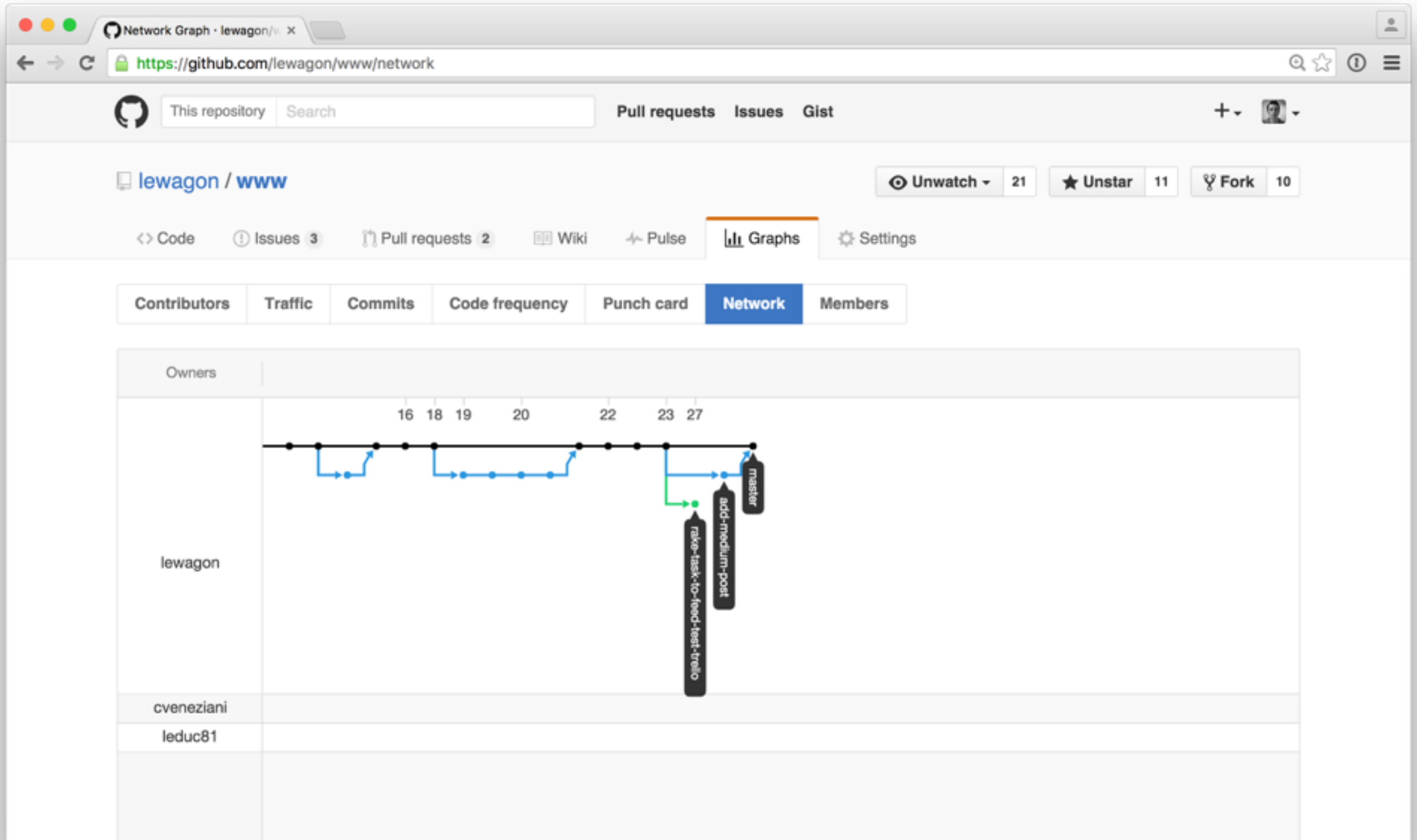
Profile page



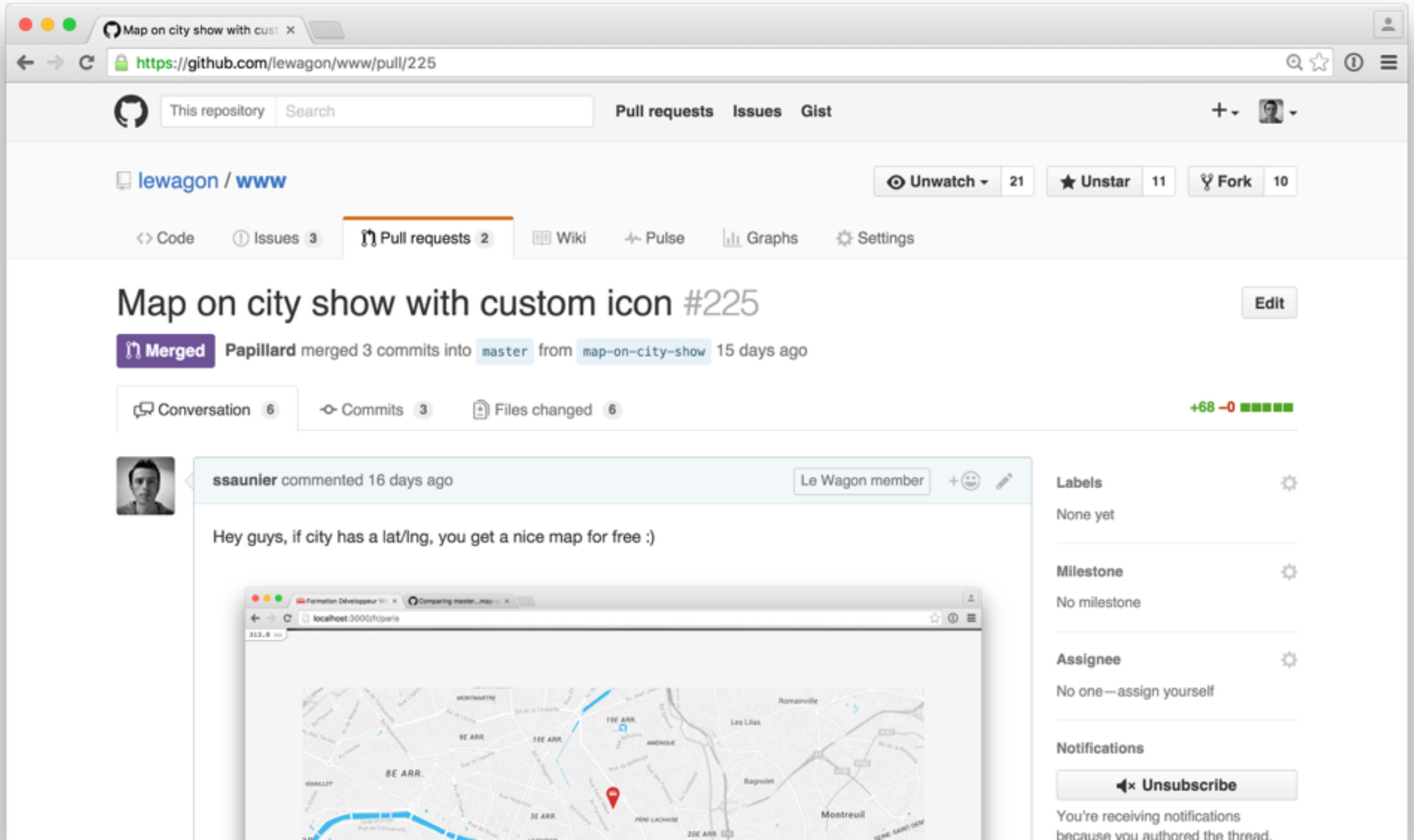
Repository page



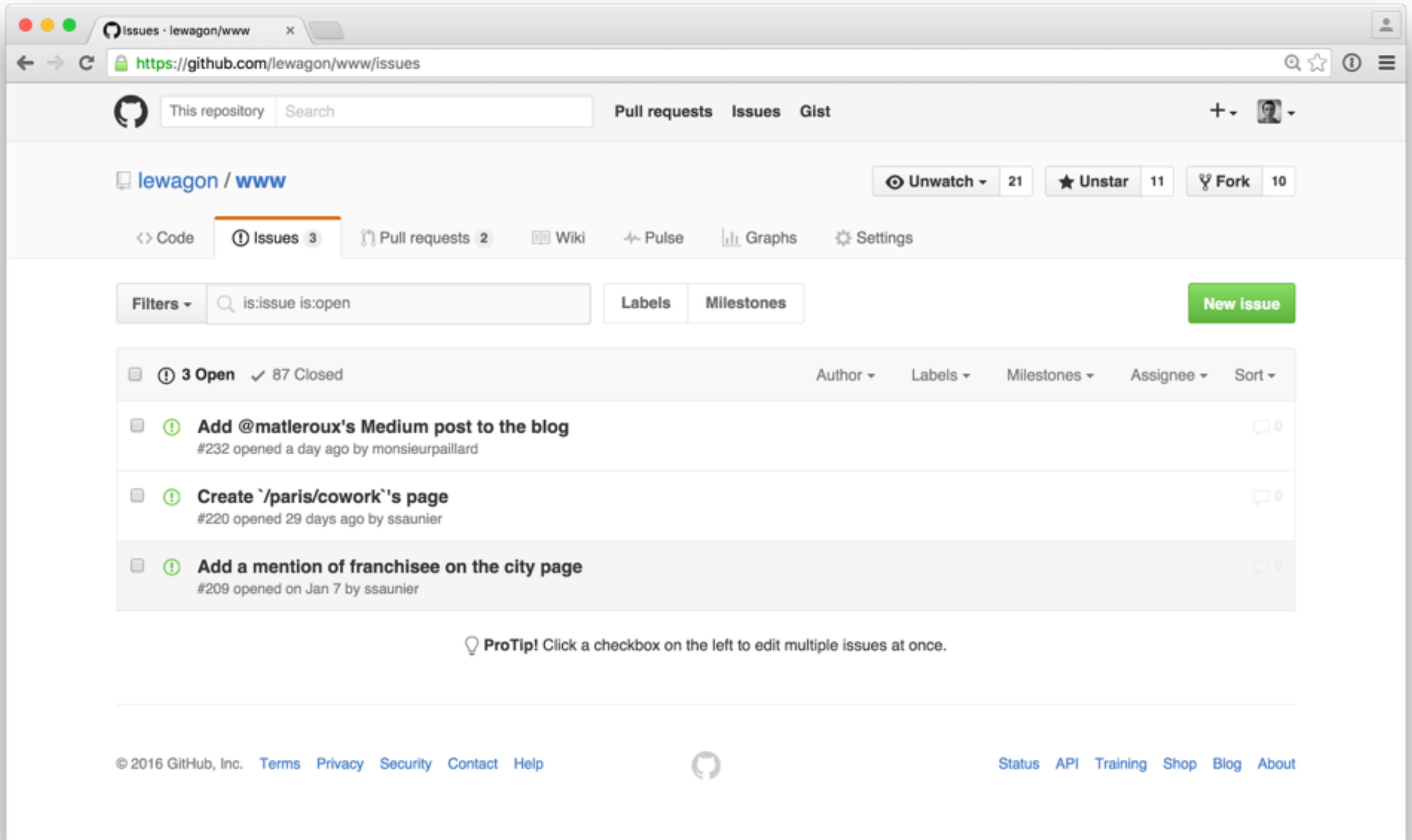
Commits & Branches



Pull requests



Issues


Issues · lewagon/www
https://github.com/lewagon/www/issues
This repository
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Pull requests
Issues
Gist
lewagon / www
Unwatch 21
Unstar 11
Fork 10
Code
Issues 3
Pull requests 2
Wiki
Pulse
Graphs
Settings
Filters
is:issue is:open
Labels
Milestones
New issue
3 Open
87 Closed
Author
Labels
Milestones
Assignee
Sort
Add @matleroux's Medium post to the blog
#232 opened a day ago by monsieurpaillard
Create `/paris/cowork`'s page
#220 opened 29 days ago by ssaunier
Add a mention of franchisee on the city page
#209 opened on Jan 7 by ssaunier
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Hosting your website for free!

Repo example: lewagon/ui-components

Thank you!