

git & GitHub for Beginners

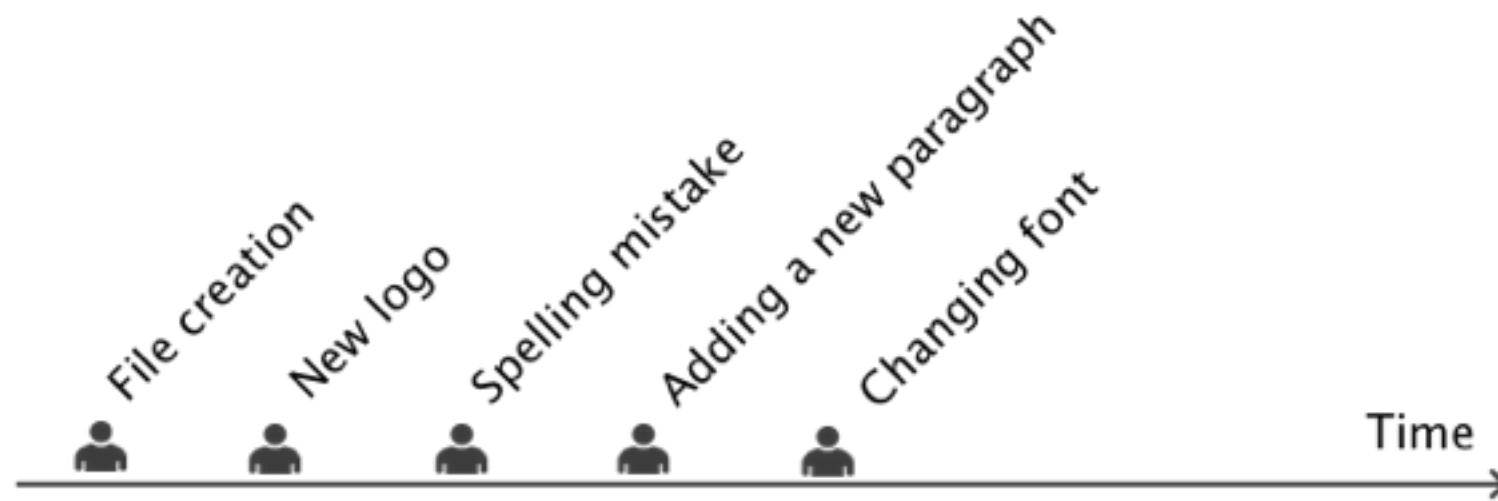
Knowledge worker

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

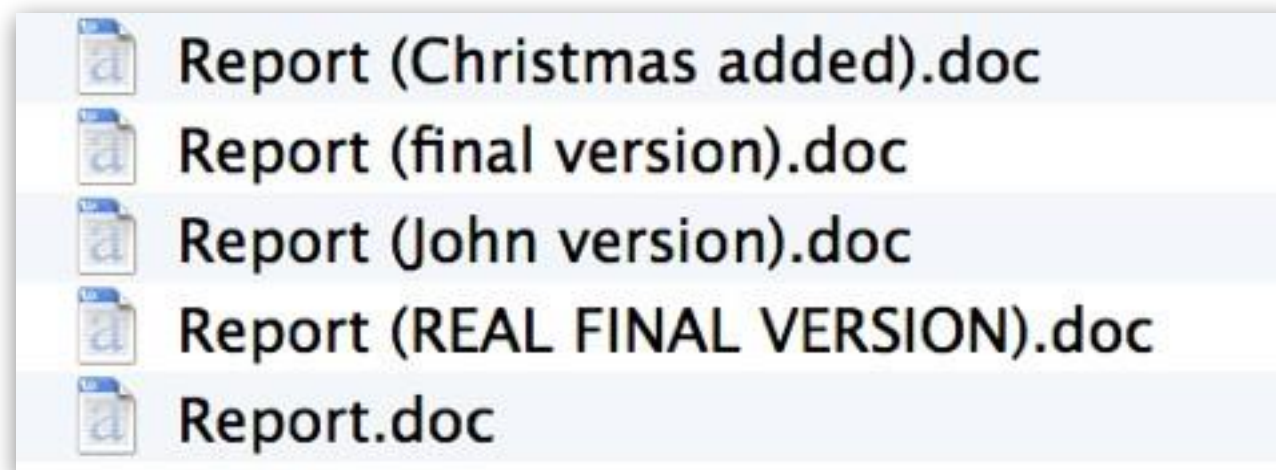
Everyday workflow

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

File life



Manual version control

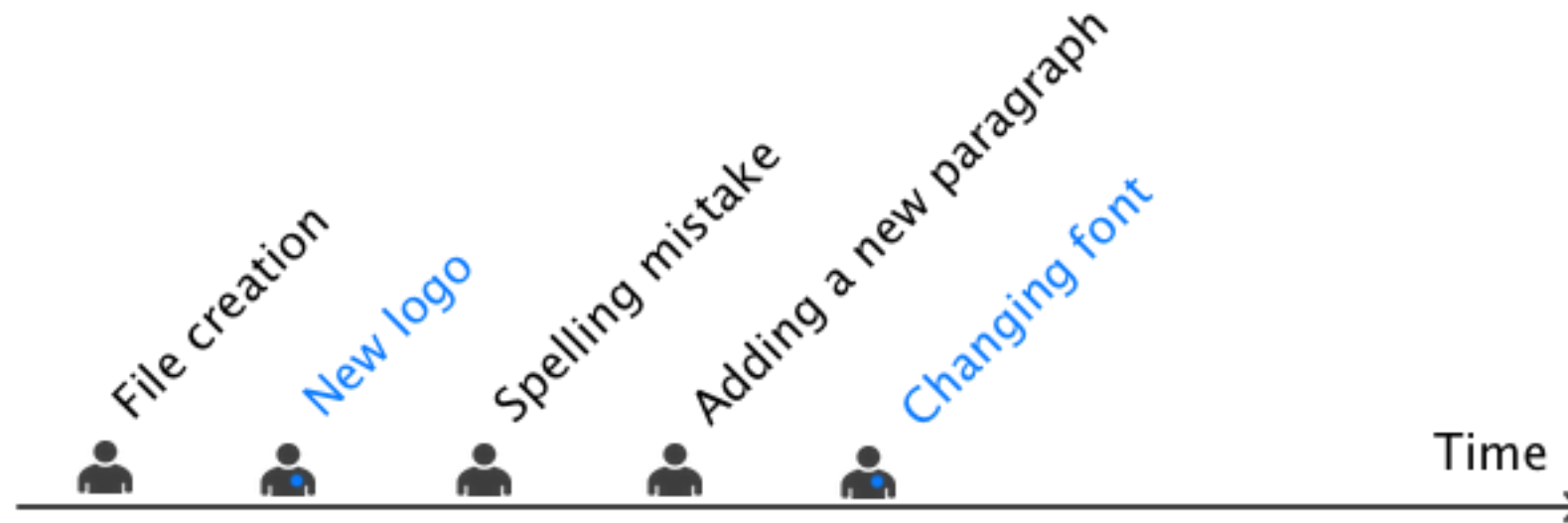


Can we automate this?

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

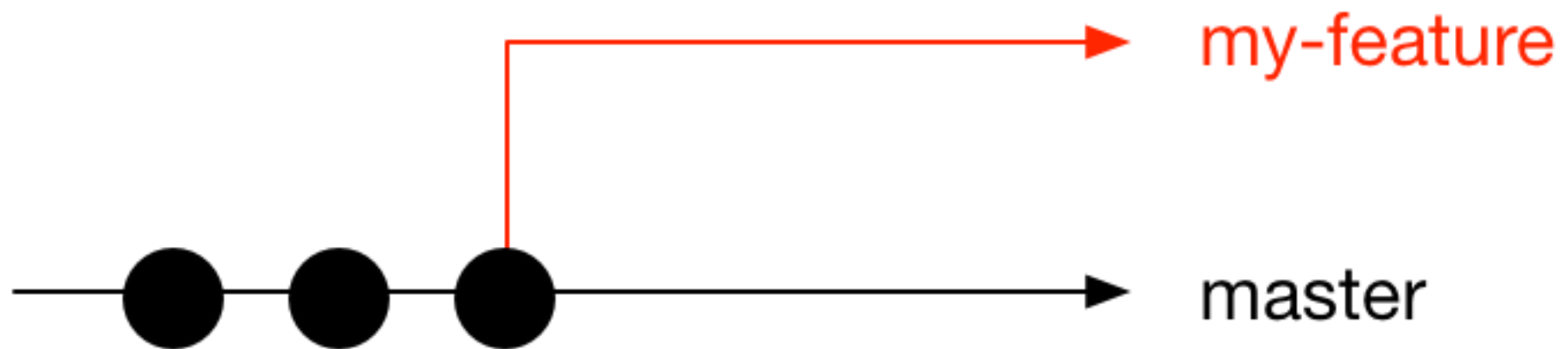
Show commit history with

```
$ git log
```

Branching

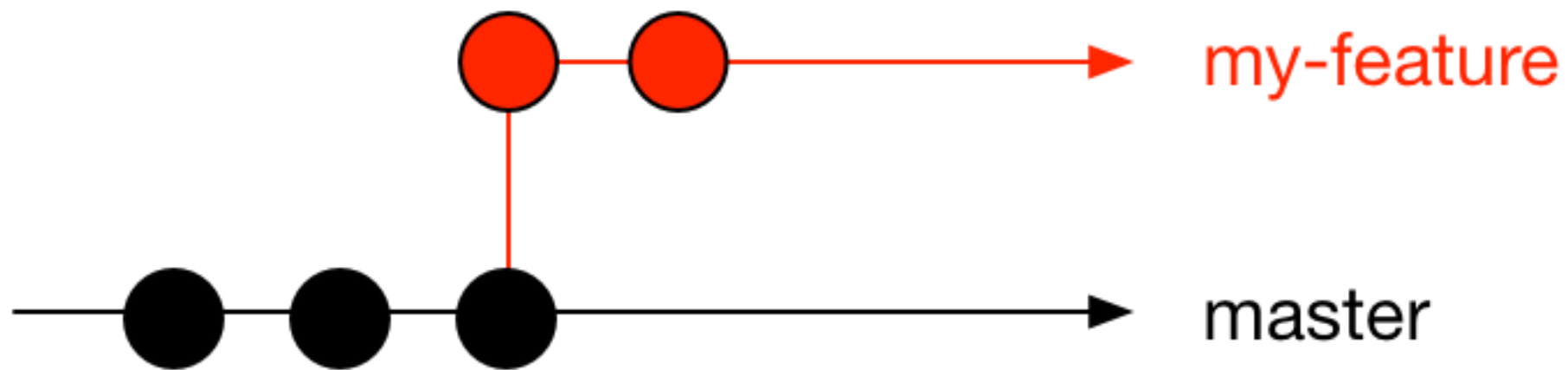
One feature = **O**ne branch

Branch



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

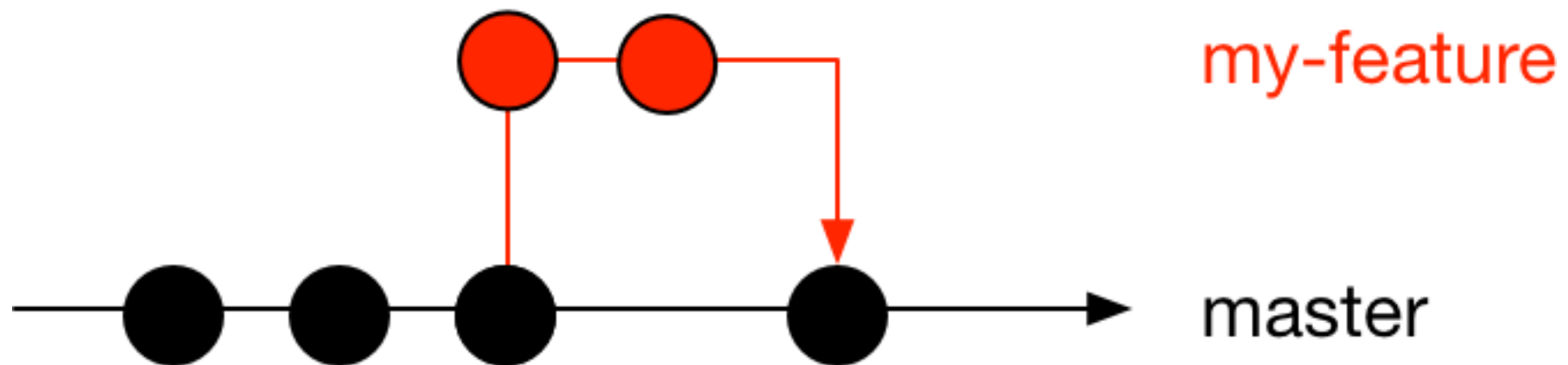
Working in the Branch



```
$ git checkout my-feature
```

```
$ git commit (x2)
```

Merge

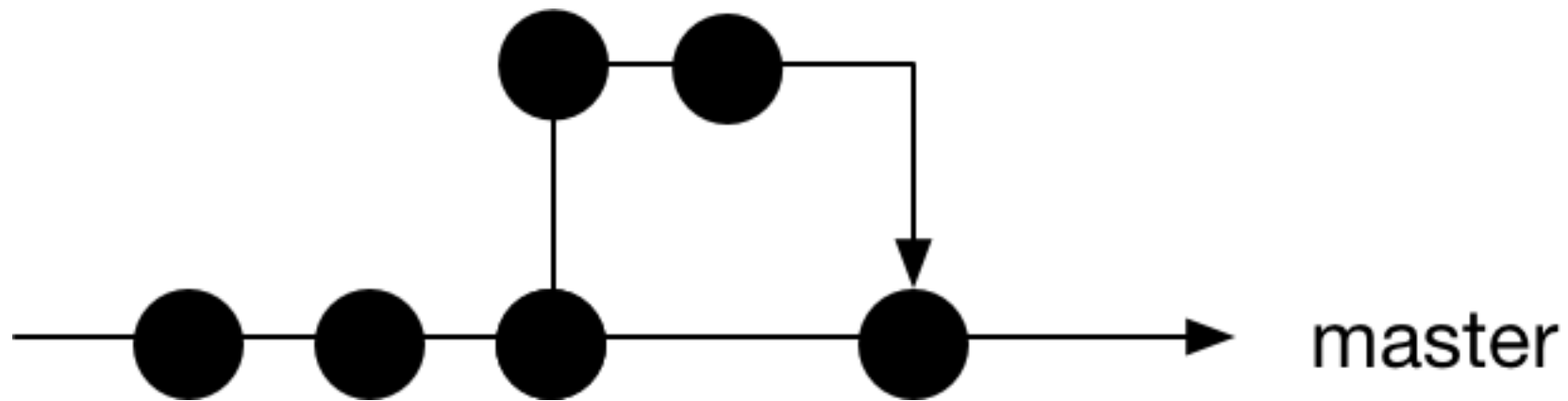


```
$ git checkout master
```

```
$ git diff master..my-feature
```

```
$ git merge --no-ff my-feature
```

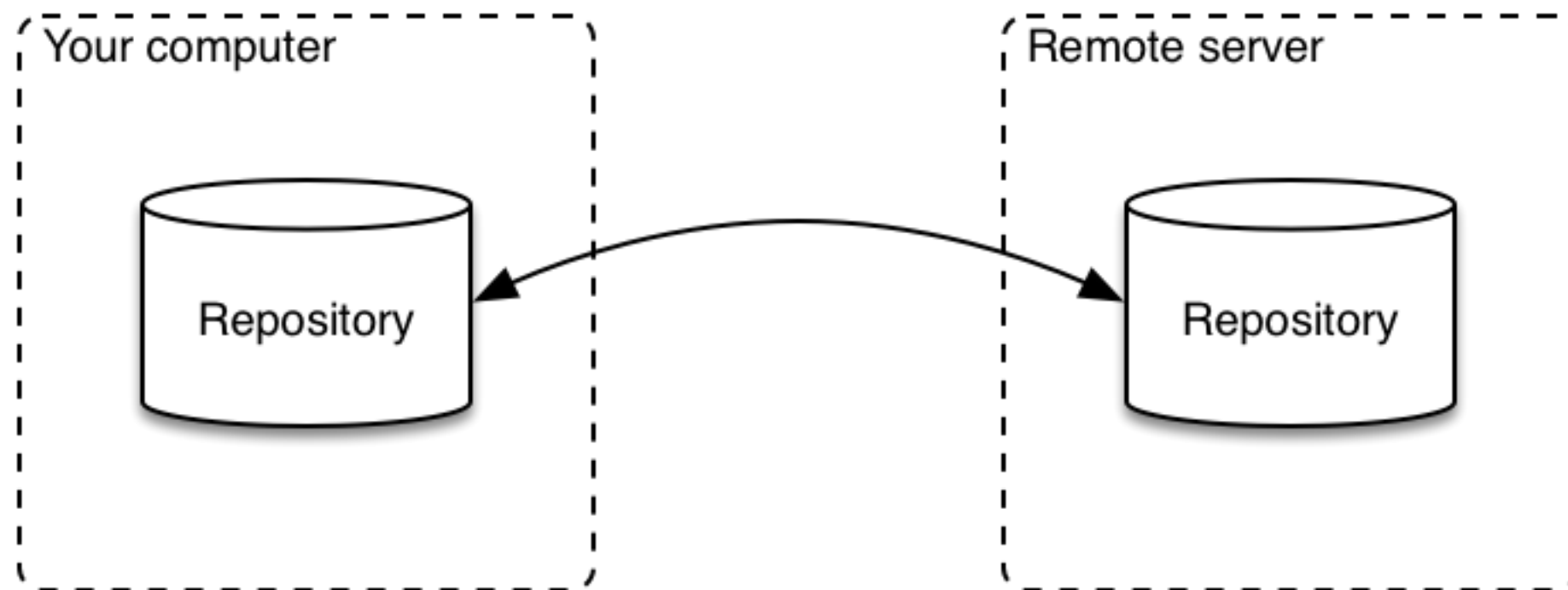

Clean up



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

Start Over

Remote





GitHub



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

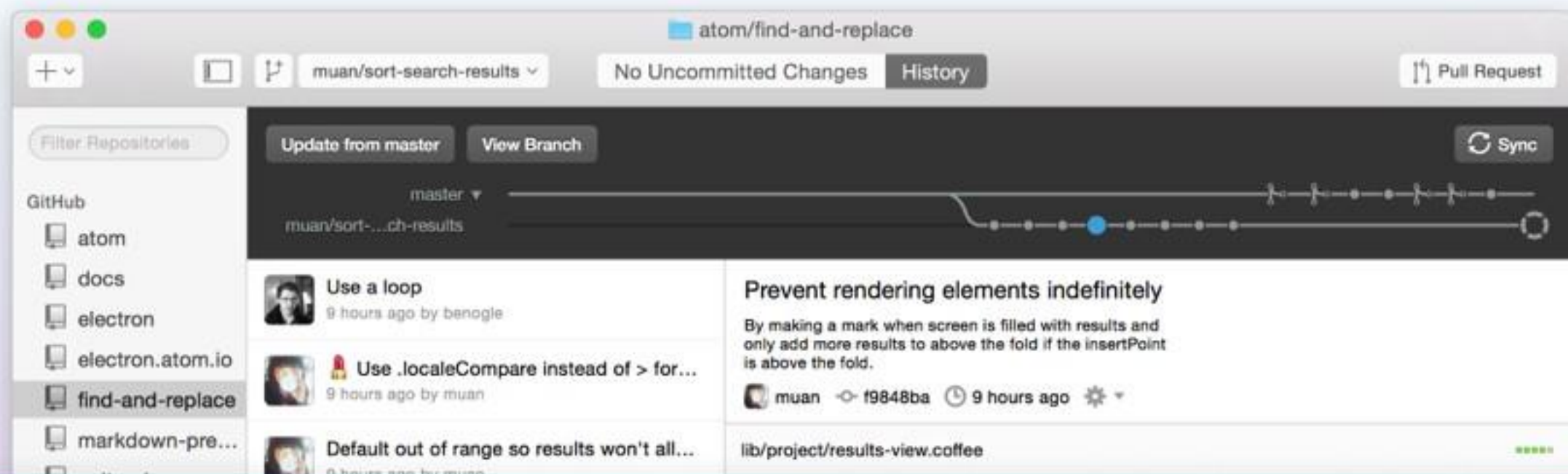
```
$ git pull <remote> <branch>
```

What we'll use

```
$ git pull origin master
```


Github Desktop app

desktop.github.com



Your GitHub workflow in one native app



Clone repositories



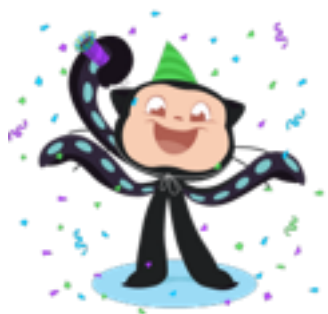
Create branches



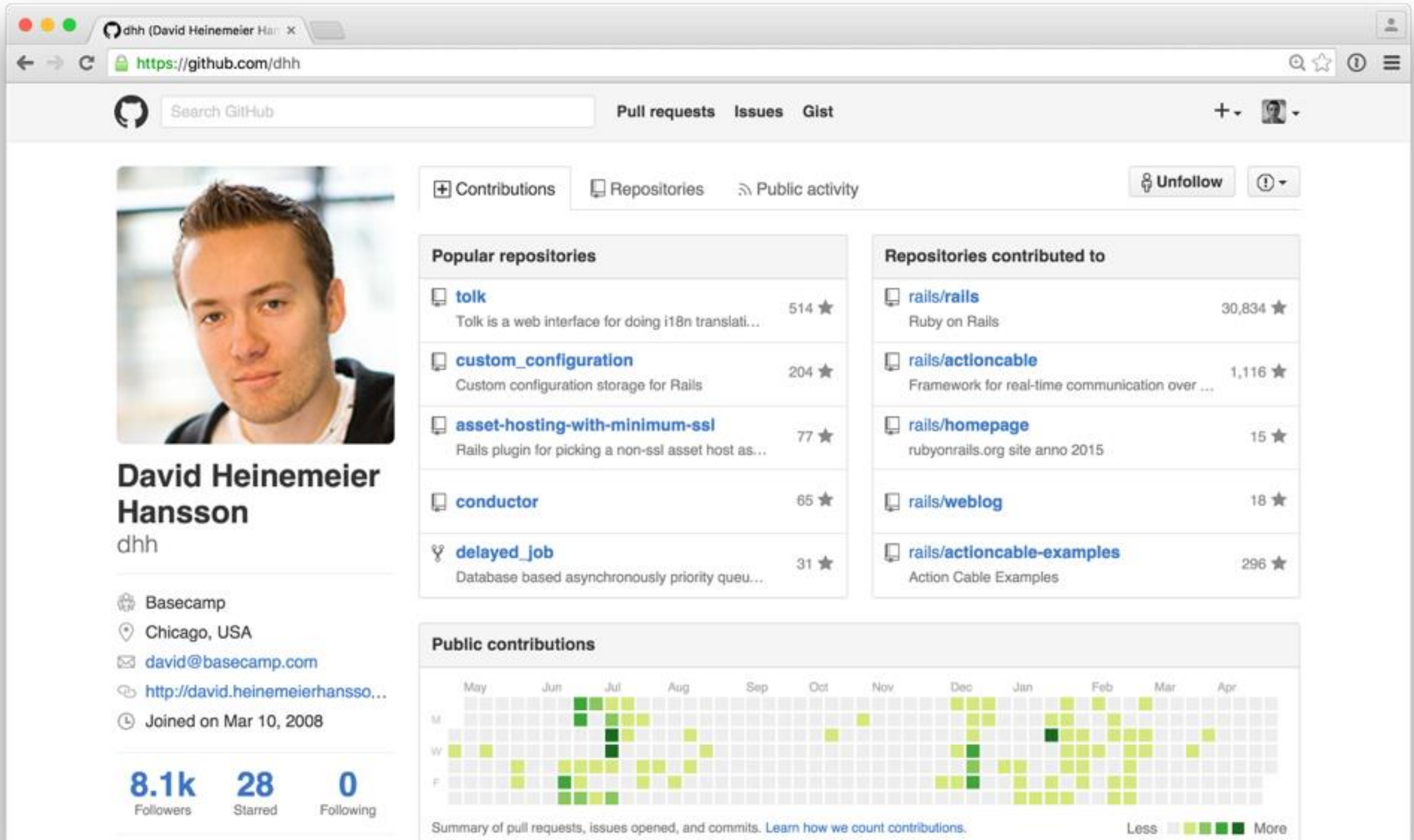
Commit changes



Share code



Profile page



The screenshot shows a web browser window displaying the GitHub profile of David Heinemeier Hansson (dhh). The browser's address bar shows the URL `https://github.com/dhh`. The GitHub navigation bar at the top includes a search bar, links for Pull requests, Issues, and Gist, and a user profile icon.

The profile section on the left features a portrait of David Heinemeier Hansson, his name, and his GitHub handle `dhh`. Below this, his affiliation with Basecamp, location in Chicago, USA, email address `david@basecamp.com`, website `http://david.heinemeierhansso...`, and the date he joined GitHub (Mar 10, 2008) are listed. At the bottom of this section, statistics show 8.1k Followers, 28 Starred repositories, and 0 Following.

The main content area is divided into two columns. The left column, titled "Popular repositories", lists five repositories with their star counts: `talk` (514 stars), `custom_configuration` (204 stars), `asset-hosting-with-minimum-ssl` (77 stars), `conductor` (65 stars), and `delayed_job` (31 stars). The right column, titled "Repositories contributed to", lists five repositories: `rails/rails` (30,834 stars), `rails/actioncable` (1,116 stars), `rails/homepage` (15 stars), `rails/weblog` (18 stars), and `rails/actioncable-examples` (296 stars). Above these columns are tabs for Contributions, Repositories, and Public activity, along with an Unfollow button.

At the bottom of the page is a "Public contributions" section featuring a calendar heatmap from May to April. The heatmap uses a color scale from light green (Less) to dark green (More) to represent the number of contributions per day. A legend at the bottom right of the heatmap indicates the color scale, and a link "Learn how we count contributions." is provided.

Repository page

The screenshot shows a web browser window displaying the GitHub repository page for 'lewagon/www'. The browser's address bar shows the URL 'https://github.com/lewagon/www'. The repository page includes a header with the GitHub logo, a search bar, and navigation links for 'Pull requests', 'Issues', and 'Gist'. Below the header, the repository name 'lewagon / www' is displayed, along with statistics: 21 Unwatch, 11 Unstar, and 10 Fork. A secondary navigation bar shows 'Code' (selected), 'Issues 3', 'Pull requests 2', 'Wiki', 'Pulse', 'Graphs', and 'Settings'. The main content area features the repository description: 'The French innovative coding school for entrepreneurs https://www.lewagon.com — Edit'. Below this, a progress bar shows 690 commits, 3 branches, 0 releases, and 8 contributors. A toolbar at the bottom of the progress bar includes 'Branch: master', 'New pull request', 'New file', 'Upload files', 'Find file', 'HTTPS', the repository URL, and 'Download ZIP'. The commit history is listed below, showing a merge pull request #233 by ssaunier and a list of recent commits with their descriptions and timestamps.

lewagon/www: The French ... x

← → ↻ <https://github.com/lewagon/www> 🔍 ☆ ⓘ ☰

This repository Search Pull requests Issues Gist + ▾

lewagon / www Unwatch ▾ 21 Unstar 11 Fork 10

Code Issues 3 Pull requests 2 Wiki Pulse Graphs Settings

The French innovative coding school for entrepreneurs <https://www.lewagon.com> — Edit

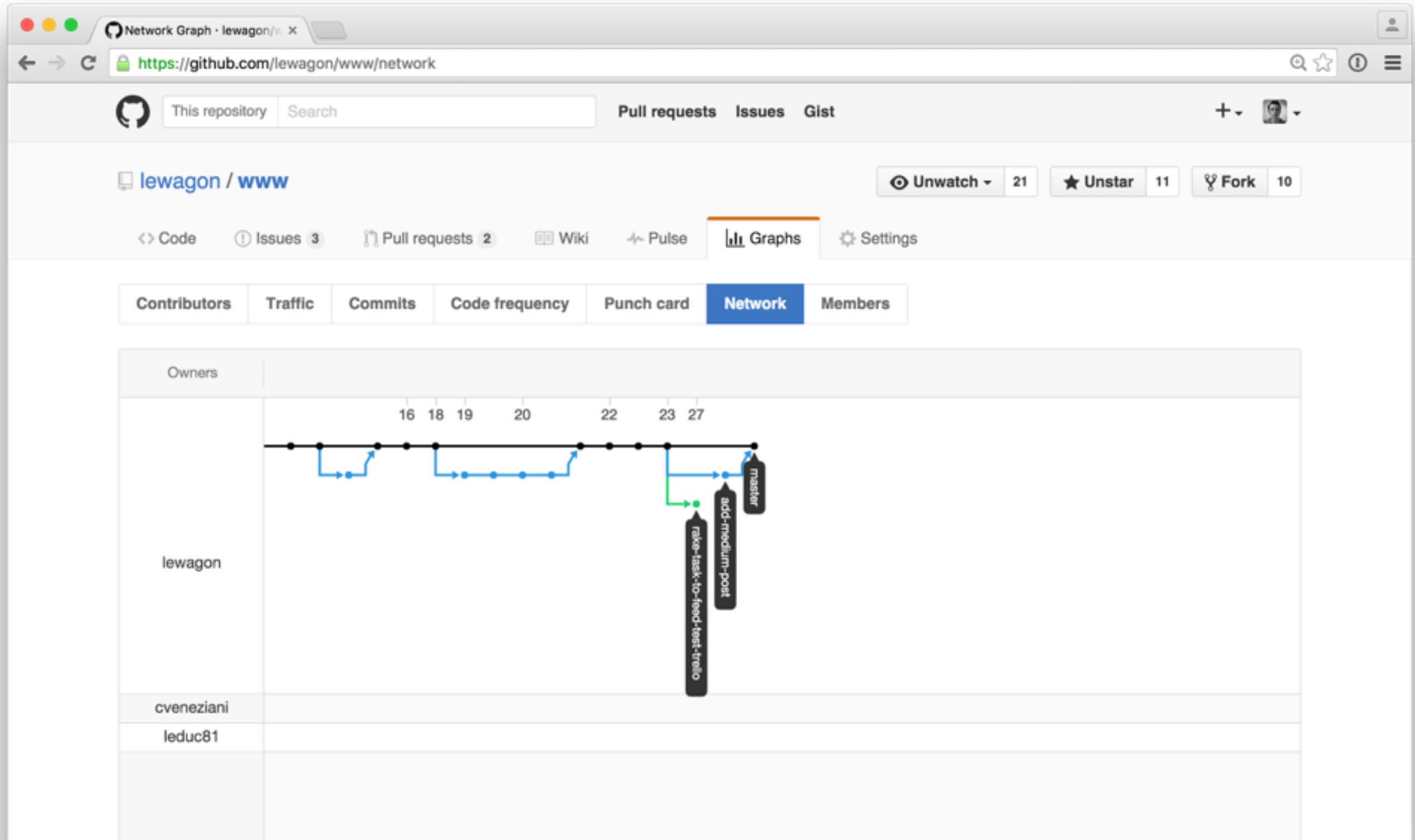
690 commits 3 branches 0 releases 8 contributors

Branch: master ▾ New pull request New file Upload files Find file HTTPS ▾ <https://github.com/lewa> Download ZIP

ssaunier Merge pull request #233 from lewagon/add-medium-post ... Latest commit 1d84ae3 21 hours ago

app	New press issues	5 days ago
bin	Test home	6 months ago
config	About page with Pitch Deck slideshare	6 days ago
data	Added Mat's post	21 hours ago
db	Add source/referrer to Apply form	2 months ago
lib	Fix cache clear + logo on story show	5 months ago
posts	Update speaker's name & video link	2 months ago
public	Refresh sitemap	16 days ago
spec	Fix specs (for real)	8 days ago

Commits & Branches



Pull requests

The screenshot shows a web browser window displaying a GitHub pull request. The address bar shows the URL `https://github.com/lewagon/www/pull/225`. The repository is `lewagon / www`. The pull request title is `Map on city show with custom icon #225`. It is marked as **Merged** and was merged by `Papillard` 15 days ago. The pull request details show 6 conversations, 3 commits, and 6 files changed, with a net change of +68 lines. A comment from `ssaunier` (Le Wagon member) is visible, stating: "Hey guys, if city has a lat/lng, you get a nice map for free :)". Below the comment is a screenshot of a web application running on `localhost:3000/fr/paris`, which displays a map of Paris with a red location pin and a blue route. The right sidebar contains settings for Labels, Milestone, Assignee, and Notifications, with an **Unsubscribe** button at the bottom.

Map on city show with custom icon #225

Merged Papillard merged 3 commits into `master` from `map-on-city-show` 15 days ago

Conversation 6 Commits 3 Files changed 6 +68 -0

ssaunier commented 16 days ago Le Wagon member

Hey guys, if city has a lat/lng, you get a nice map for free :)

localhost:3000/fr/paris

Labels: None yet

Milestone: No milestone

Assignee: No one — assign yourself

Notifications: **Unsubscribe**

You're receiving notifications because you authored the thread.

Issues

The screenshot shows the GitHub interface for the repository 'lewagon/www'. The browser address bar displays 'https://github.com/lewagon/www/issues'. The repository name 'lewagon / www' is shown with statistics: 21 Unwatch, 11 Unstar, and 10 Fork. The 'Issues' tab is selected, showing 3 open issues and 87 closed issues. A search filter 'is:issue is:open' is applied. The issues list contains three items:

- ☐ **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

A ProTip message states: 'ProTip! Click a checkbox on the left to edit multiple issues at once.'

The footer includes the copyright notice '© 2016 GitHub, Inc.', links for Terms, Privacy, Security, Contact, and Help, the GitHub logo, and links for Status, API, Training, Shop, Blog, and About.

Forks

Open source contribution

Github pages

Hosting your website for free!

Repo example: [lewagon/ui-components](#)

Thank you!