

git & GitHub for Beginners

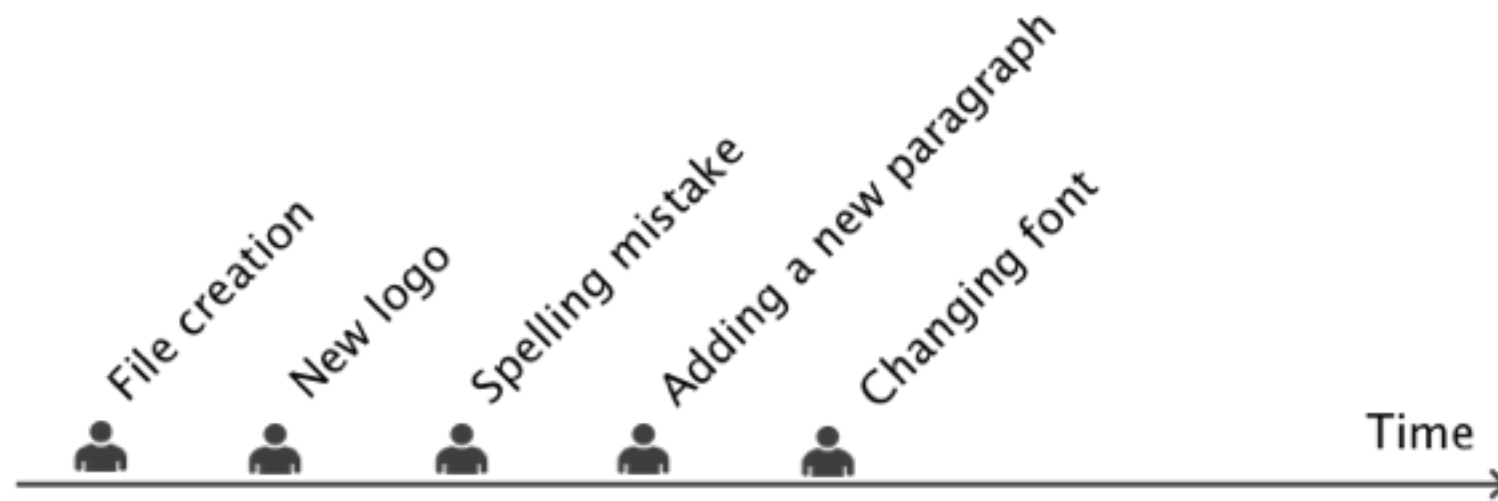
Knowledge worker

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

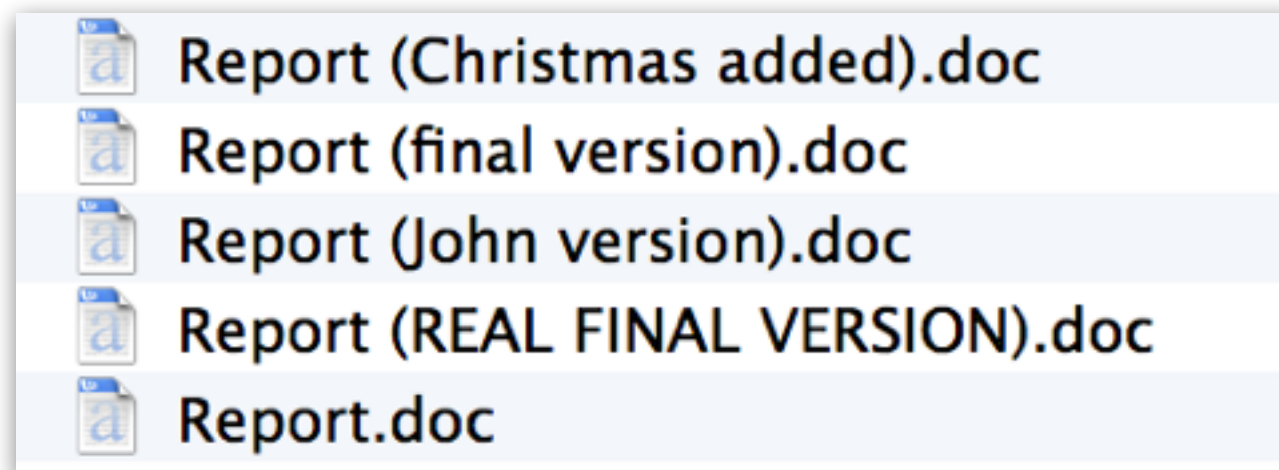
Everyday workflow

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

File life



Manual version control

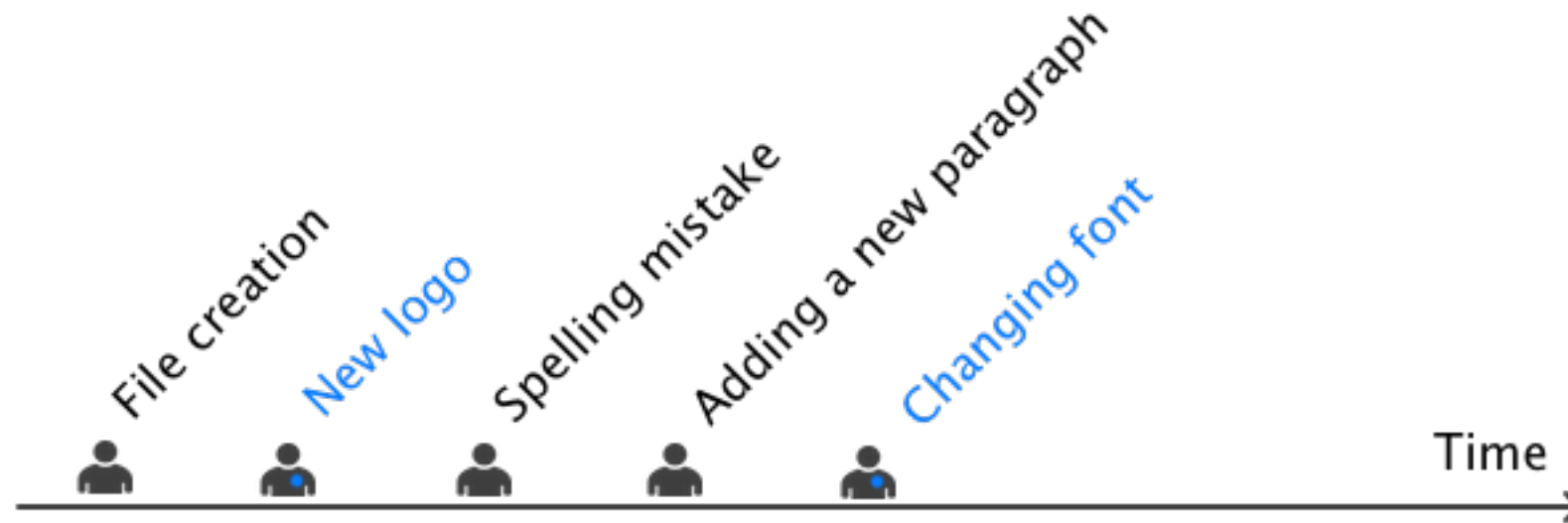


Can we automate this?

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



Set up

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

Y our 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

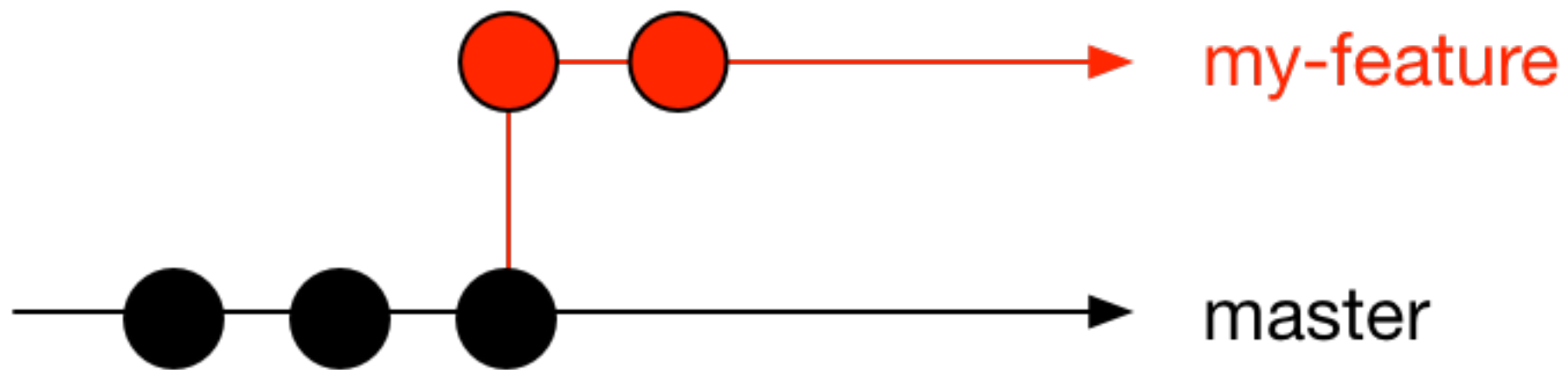
One feature = One branch

Branch



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

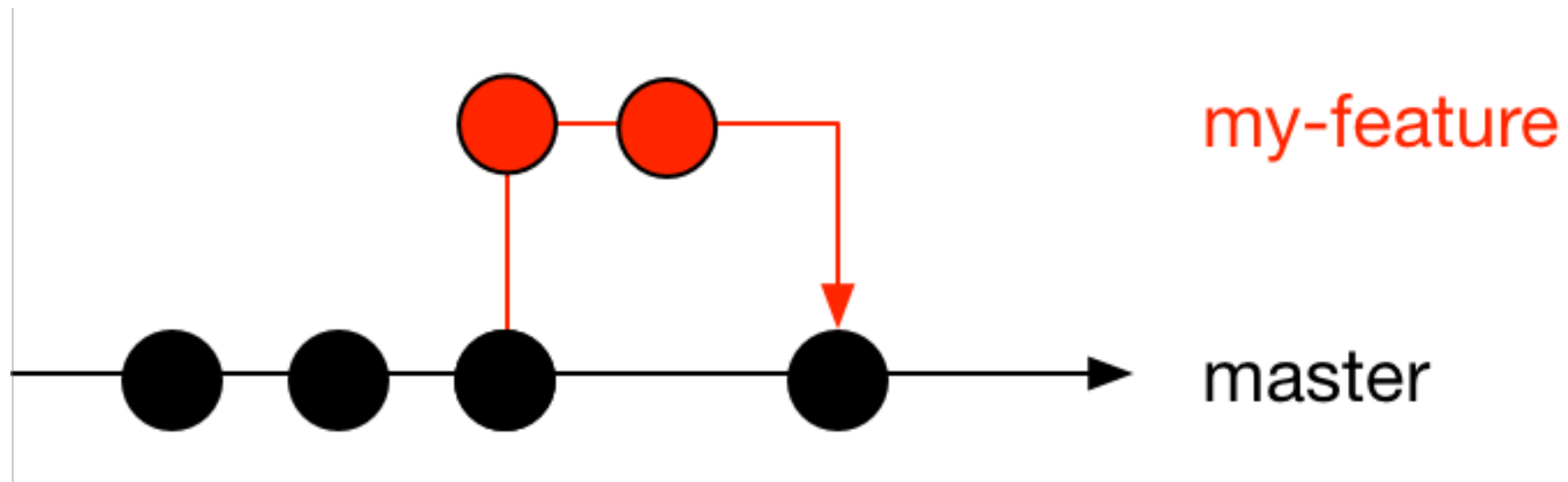
Working in the Branch



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

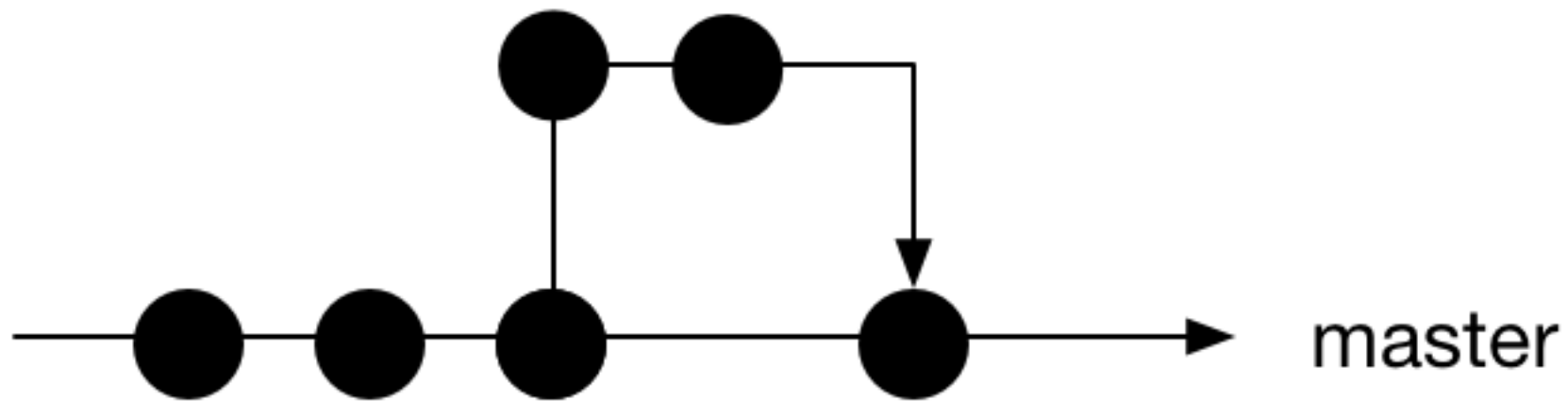
```
$ git commit (x2)
```

Merge



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

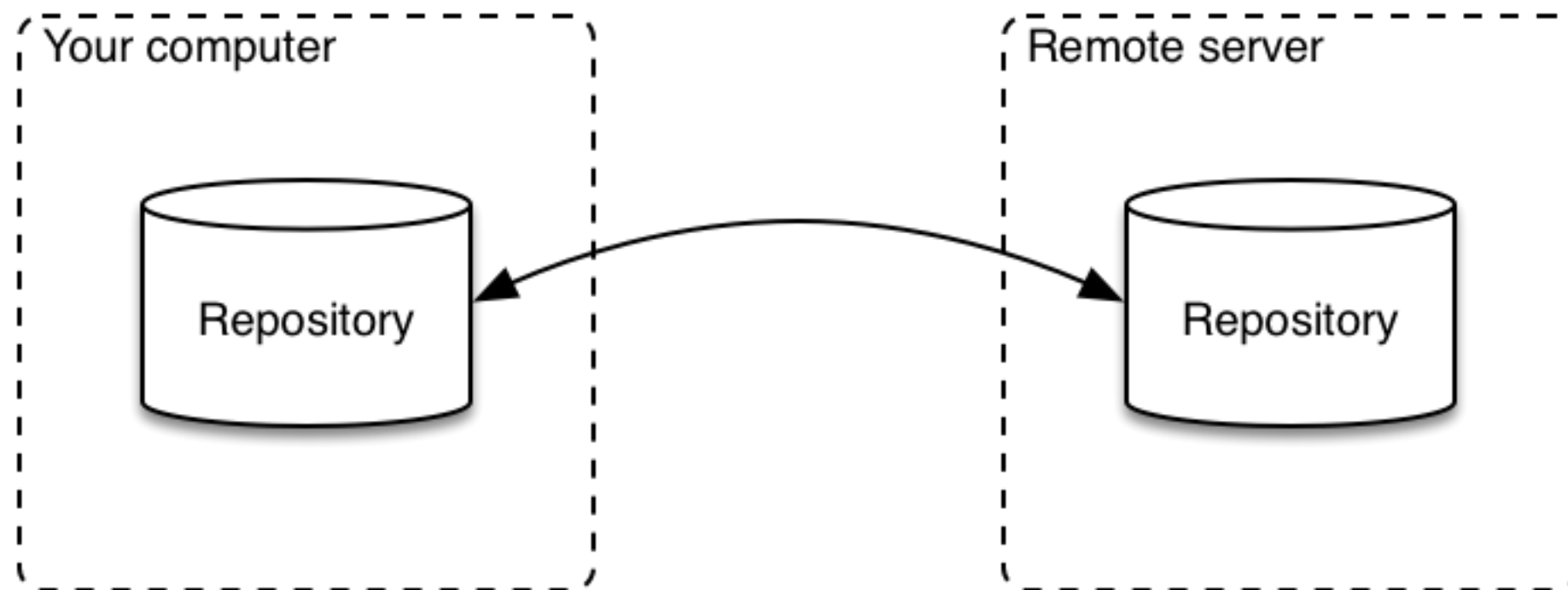

Clean up



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

Start Over

Remote





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

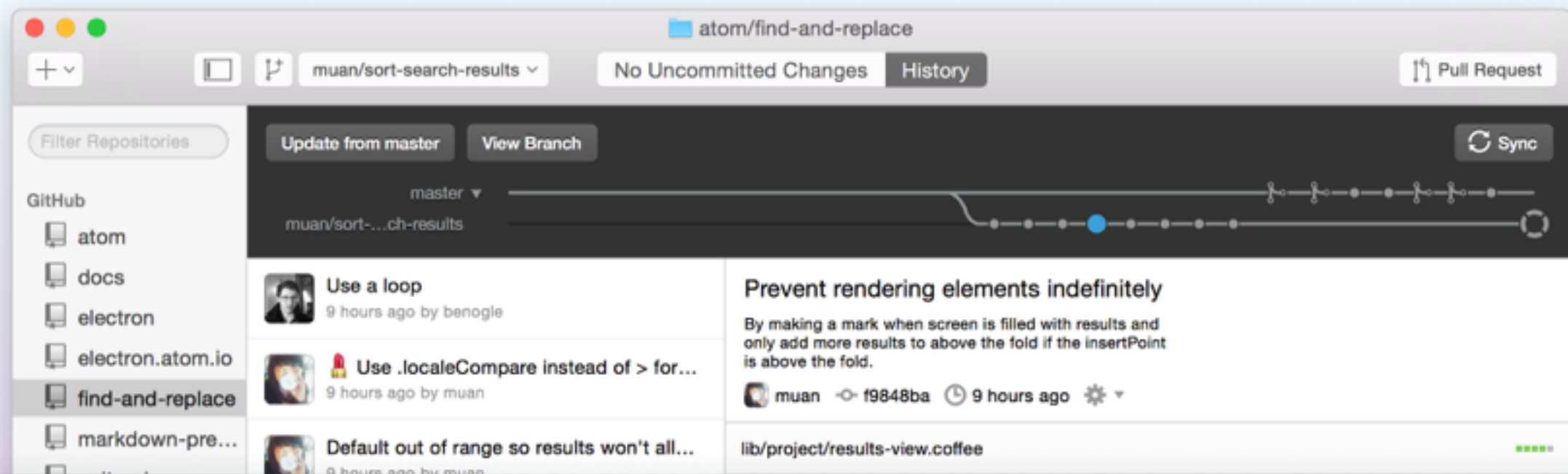
```
$ git pull <remote> <branch>
```

What we'll use

```
$ git pull origin master
```


Github Desktop app

desktop.github.com



Your GitHub workflow in one native app



Clone repositories



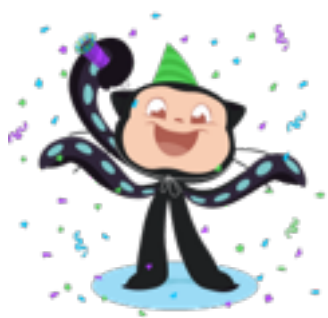
Create branches



Commit changes



Share code



Profile page

The screenshot shows the GitHub profile page for David Heinemeier Hansson (dhh). The page layout includes a header with navigation links, a profile section with a photo and bio, and two main columns of repository lists. At the bottom, there is a public contributions calendar and a summary of activity.

Header: Search GitHub, Pull requests, Issues, Gist, +, dhh

Profile Section:

- Contributions:** Repositories, Public activity
- Unfollow**
- Popular repositories:**
 - talk** (514 stars): Talk is a web interface for doing i18n translati...
 - custom_configuration** (204 stars): Custom configuration storage for Rails
 - asset-hosting-with-minimum-ssl** (77 stars): Rails plugin for picking a non-ssl asset host as...
 - conductor** (65 stars)
 - delayed_job** (31 stars): Database based asynchronously priority queu...
- Repositories contributed to:**
 - rails/rails** (30,834 stars): Ruby on Rails
 - rails/actioncable** (1,116 stars): Framework for real-time communication over ...
 - rails/homepage** (15 stars): rubyonrails.org site anno 2015
 - rails/weblog** (18 stars)
 - rails/actioncable-examples** (296 stars): Action Cable Examples

Public contributions:

Summary of pull requests, issues opened, and commits. [Learn how we count contributions.](#)

Less More

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 name 'lewagon / www' is prominently displayed. Below the repository name, there are tabs for 'Code', 'Issues' (3), 'Pull requests' (2), 'Wiki', 'Pulse', 'Graphs', and 'Settings'. The 'Code' tab is selected. The repository description is 'The French innovative coding school for entrepreneurs https://www.lewagon.com — Edit'. Below the description, there are statistics: 690 commits, 3 branches, 0 releases, and 8 contributors. A progress bar is shown below these statistics. The 'Branch: master' dropdown is set to 'master', and there is a 'New pull request' button. Other buttons include 'New file', 'Upload files', 'Find file', 'HTTPS', and 'Download ZIP'. The commit history is listed below, showing the latest commit by 'ssaunier' merging pull request #233 from 'lewagon/add-medium-post' 21 hours ago. The commit list includes folders like 'app', 'bin', 'config', 'data', 'db', 'lib', 'posts', 'public', and 'spec' with their respective commit messages 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

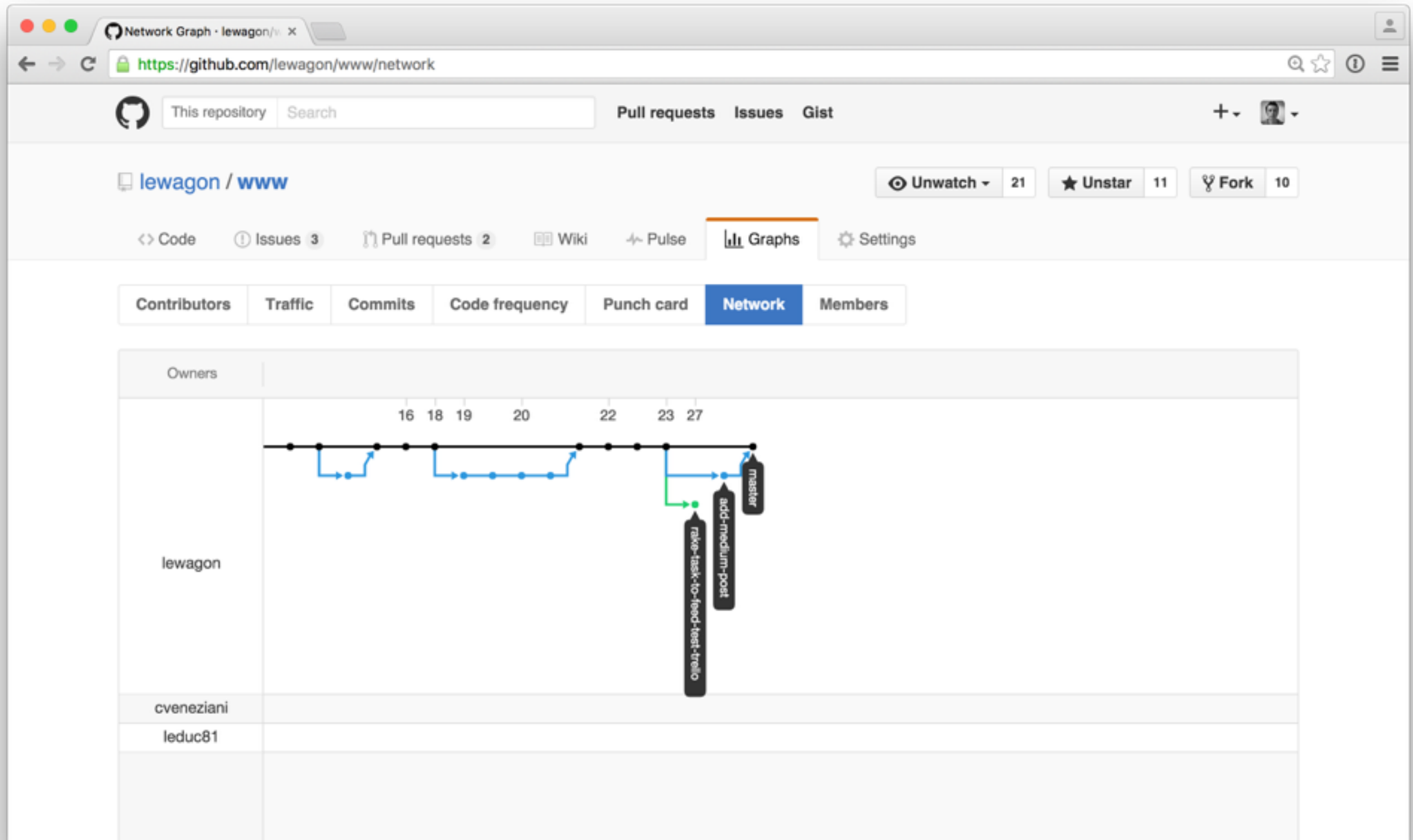
690 commits 3 branches 0 releases 8 contributors

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` (a 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 bar contains the query 'is:issue is:open'. A list of three open issues is displayed, each with a checkbox on the left and a comment icon on the right. A 'ProTip!' message suggests clicking a checkbox to edit multiple issues at once. The footer includes the GitHub logo, copyright information for 2016, and links to Terms, Privacy, Security, Contact, Help, Status, API, Training, Shop, Blog, and About.

Issues · lewagon/www

https://github.com/lewagon/www/issues

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

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 0
- ☐ Create `/paris/cowork`'s page
#220 opened 29 days ago by ssaunier 0
- ☐ Add a mention of franchisee on the city page
#209 opened on Jan 7 by ssaunier 0

ProTip! Click a checkbox on the left to edit multiple issues at once.

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Forks

Open source contribution

Github pages

Hosting your website for free!

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

Thank you!