

git & GitHub for Beginners

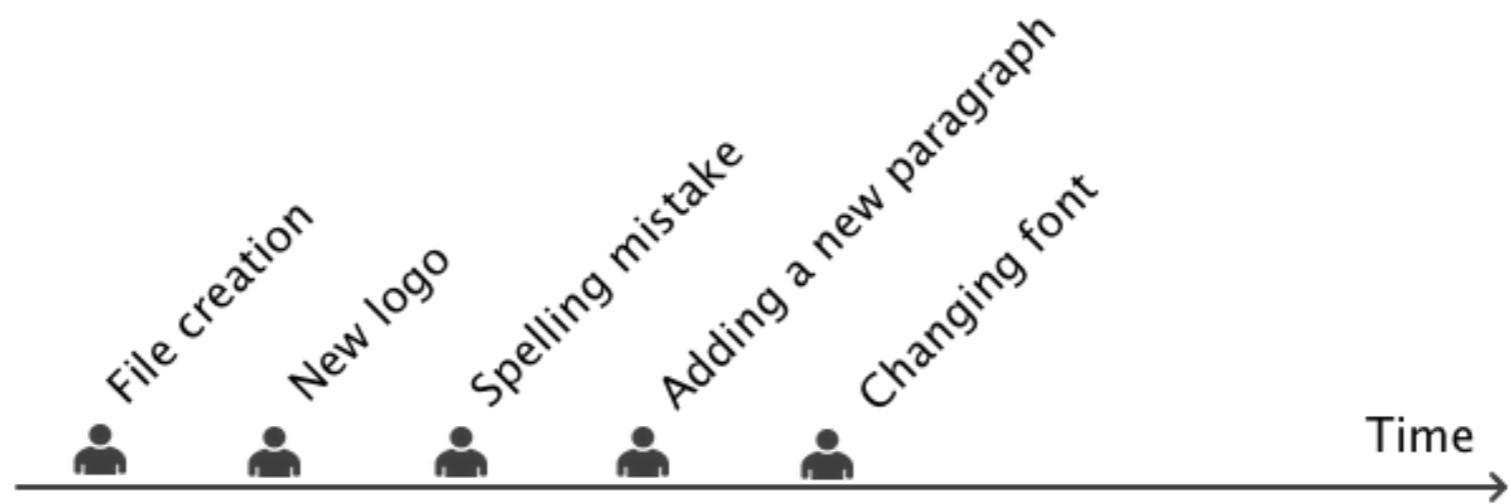
Knowledge worker

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

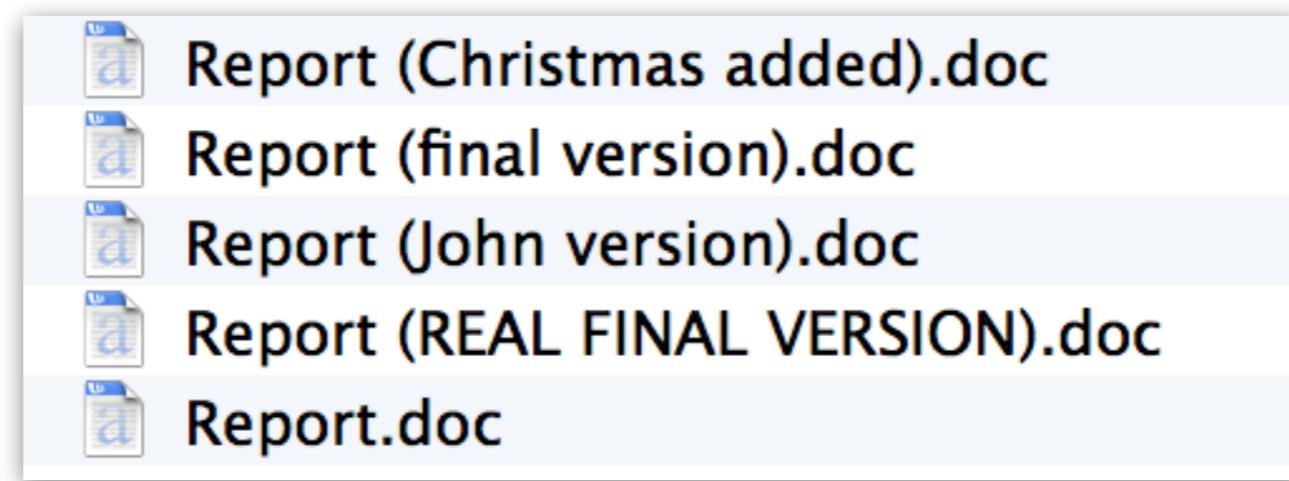
Everyday workflow

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

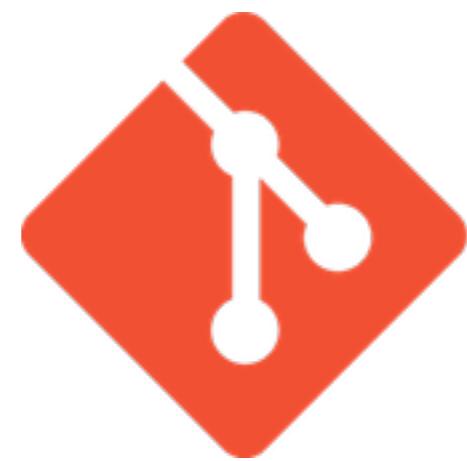
For each document version, we need to know

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

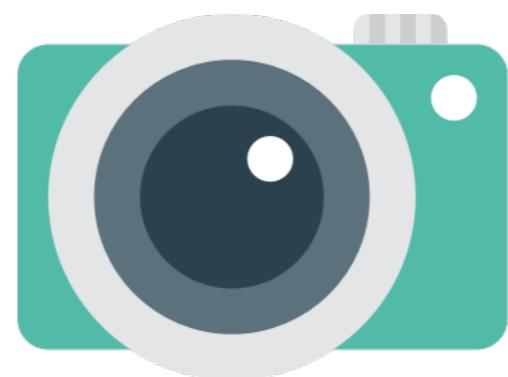
```
$ mkdir new_project  
$ cd new_project  
$ git init
```

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

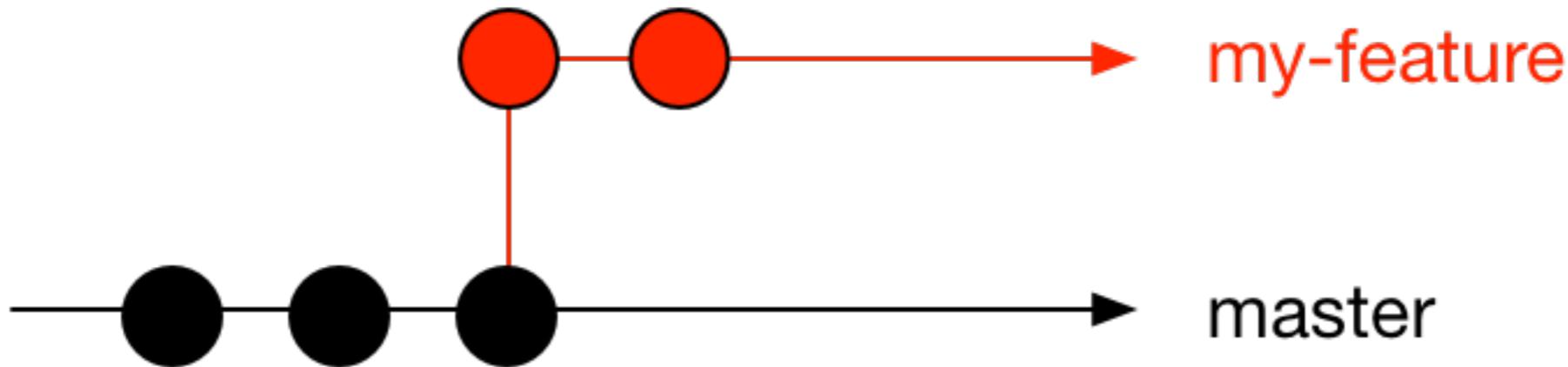
One feature = One branch

Branch



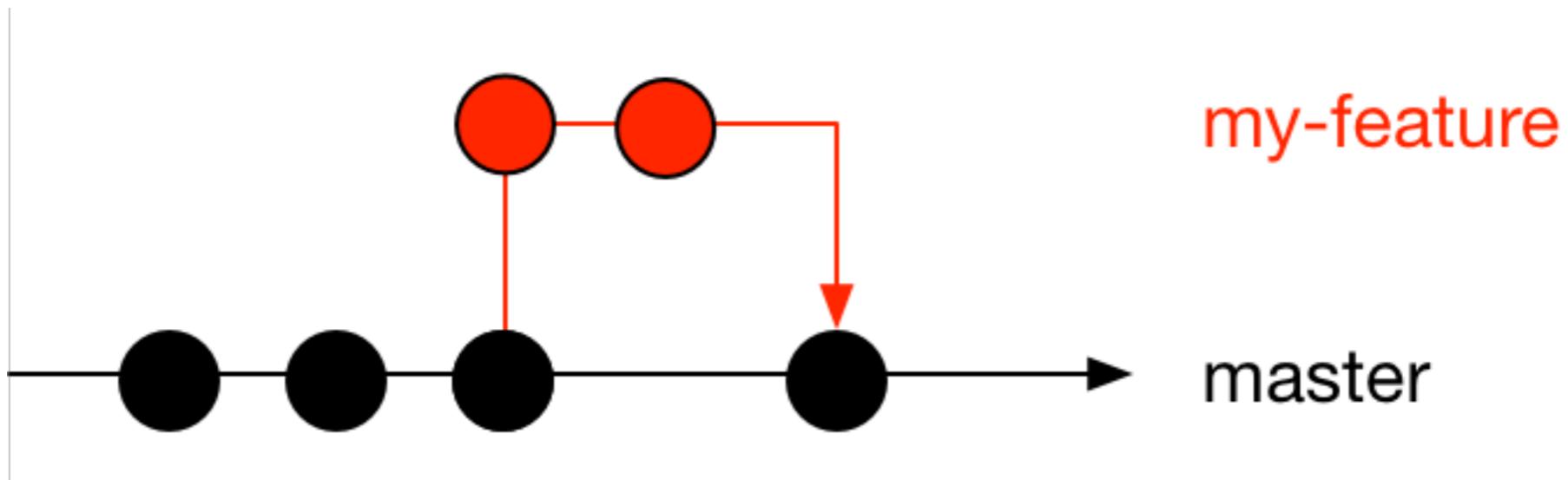
```
$ git branch my-feature
```

Working in the Branch



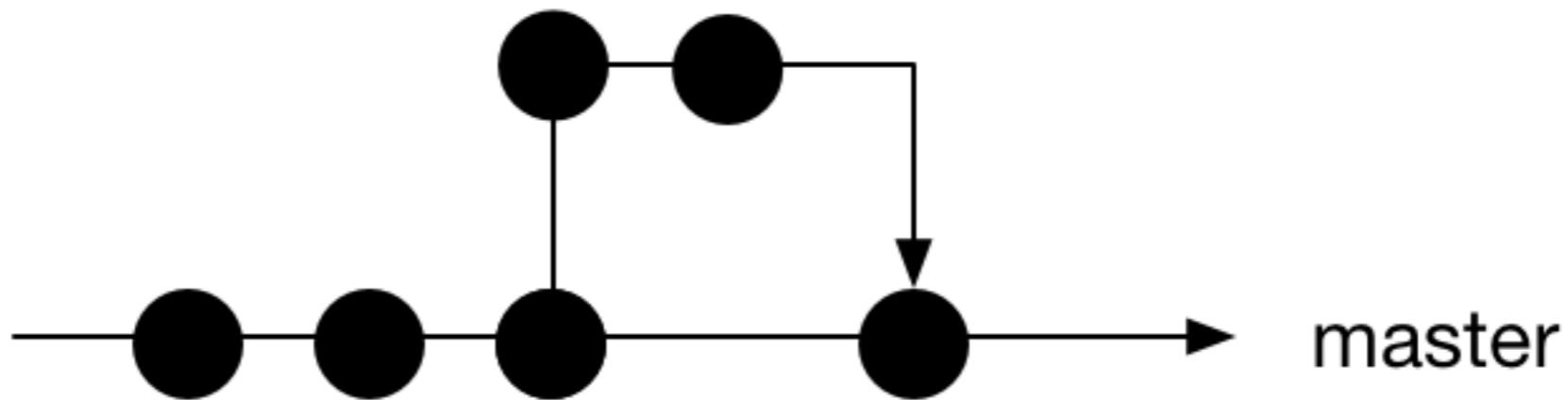
```
$ git checkout my-feature  
$ git commit (x2)
```

Merge



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

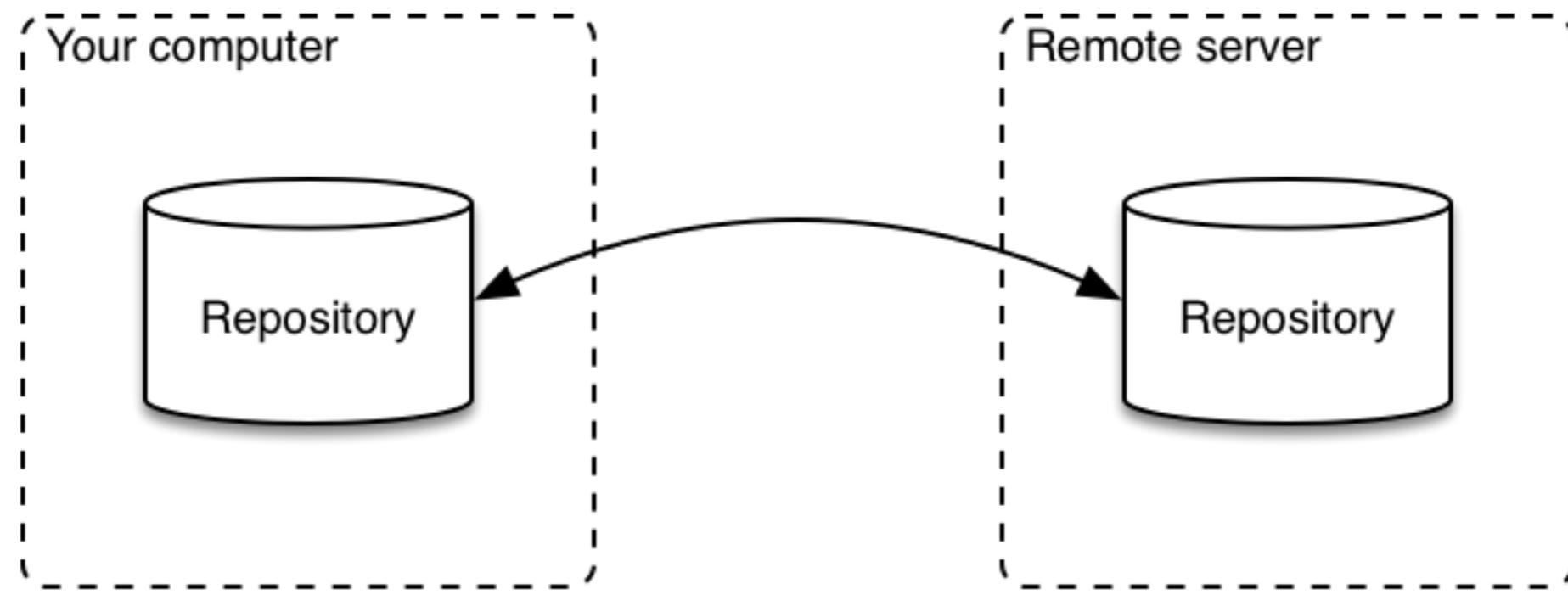
Clean up

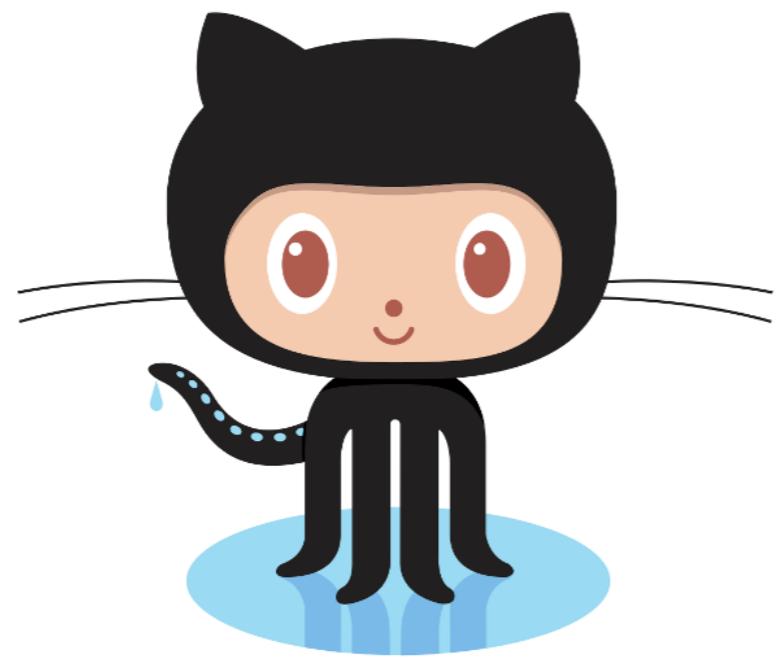


```
$ git branch -d my-feature
```

Start Over

Remote





GitHub

 **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>
```

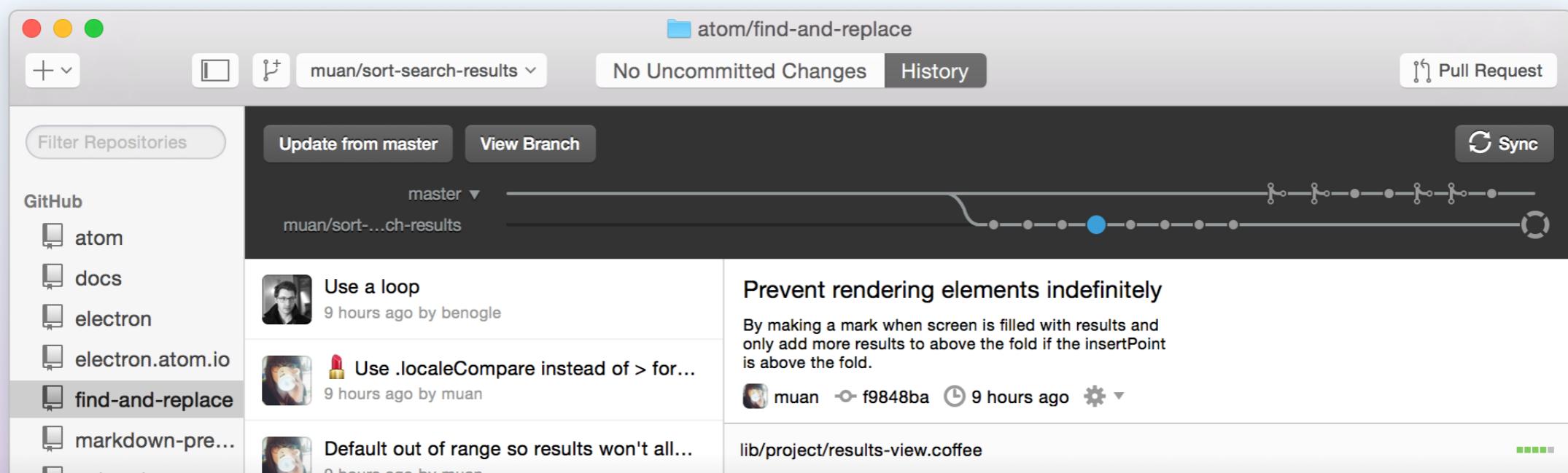
```
# What we'll use  
$ git push origin master
```

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



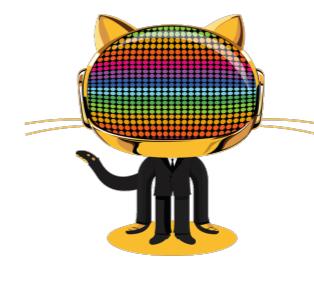
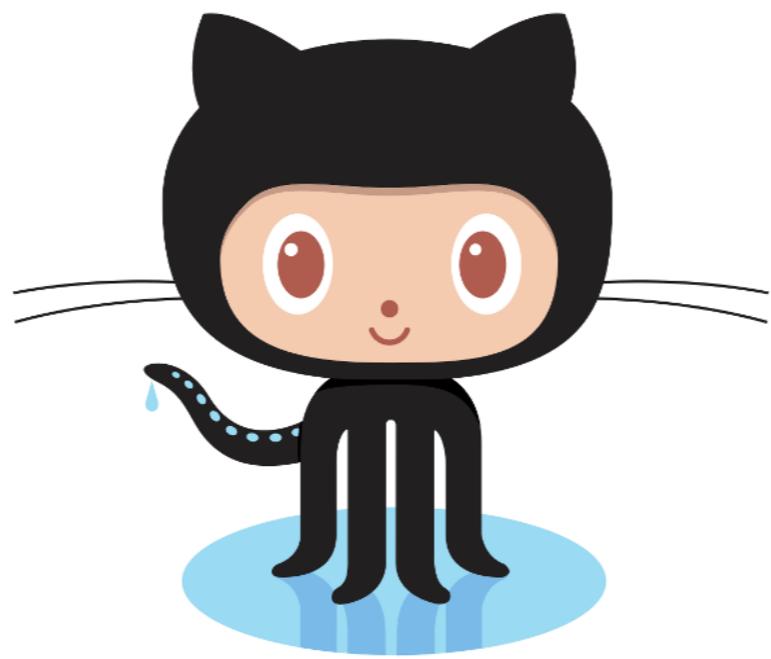
Create branches



Commit changes



Share code



Profile page

Screenshot of David Heinemeier Hansson's GitHub profile page (<https://github.com/dhh>)

The page shows David Heinemeier Hansson's contributions, repositories, and activity over time.

Popular repositories

Repository	Contributions
talk Tolk is a web interface for doing i18n translati...	514 ★
custom_configuration Custom configuration storage for Rails	204 ★
asset-hosting-with-minimum-ssl Rails plugin for picking a non-ssl asset host as...	77 ★
conductor	65 ★
delayed_job Database based asynchronously priority queu...	31 ★

Repositories contributed to

Repository	Contributions
rails/rails Ruby on Rails	30,834 ★
rails/actionable Framework for real-time communication over ...	1,116 ★
rails/homepage rubyonrails.org site anno 2015	15 ★
rails/weblog	18 ★
rails/actionable-examples Action Cable Examples	296 ★

Public contributions

Summary of pull requests, issues opened, and commits. Learn how we count contributions.

Less More

Month	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
M	Low	Medium	High	Medium	Low	Medium	Low	High	Medium	High	Low	Medium
W	Medium	Low	High	Medium	Low	Medium	Low	High	Medium	High	Low	Medium
F	Low	Medium	High	Medium	Low	Medium	Low	High	Medium	High	Low	Medium

David Heinemeier Hansson
dhh

Basecamp
Chicago, USA
david@basecamp.com
[http://david.heinemeierhansson...](http://david.heinemeierhansson.net)
Joined on Mar 10, 2008

8.1k Followers 28 Starred 0 Following

Repository page

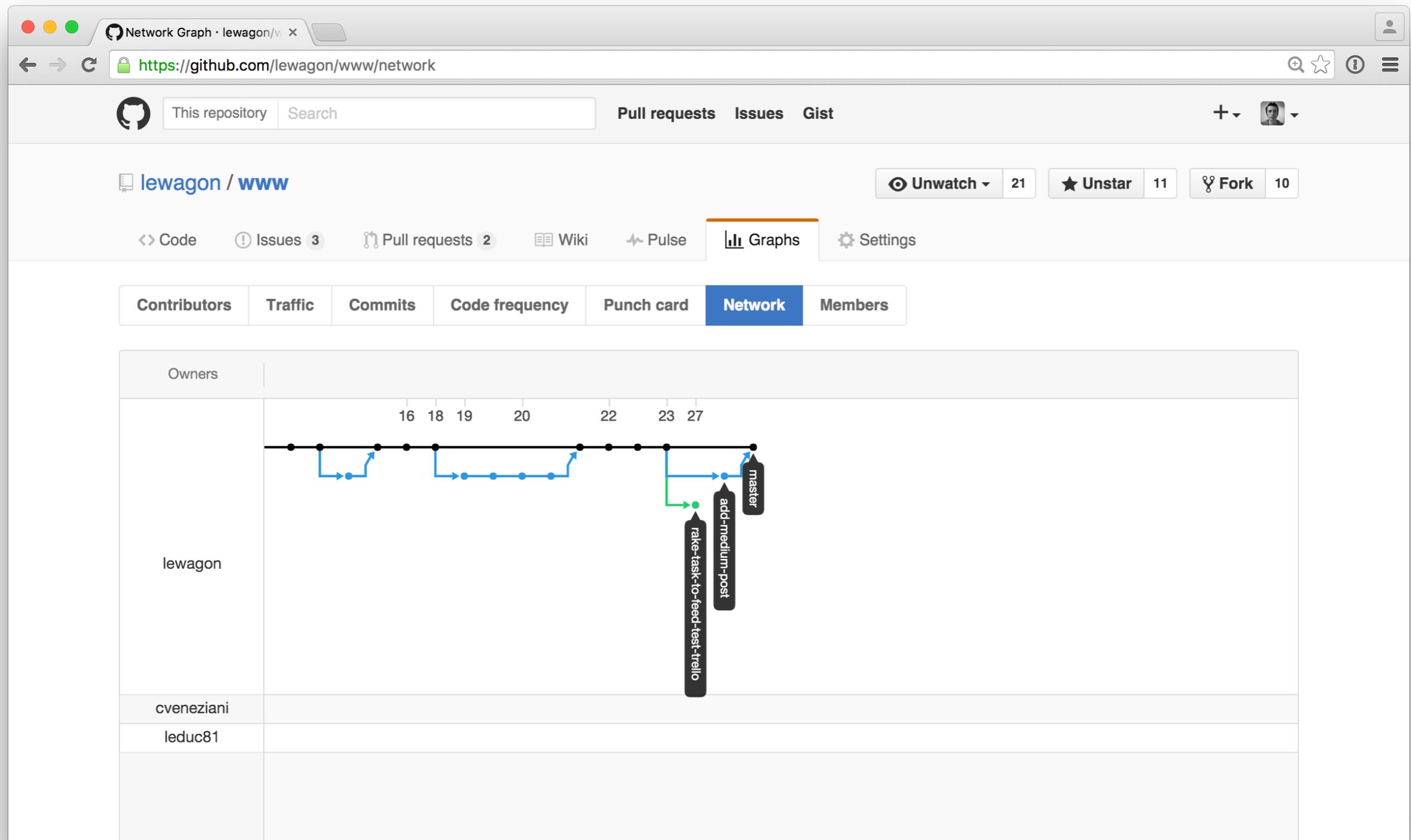
The screenshot shows a GitHub repository page for 'lewagon/www'. The page has a light gray header with the repository name 'lewagon/www: The French' and a search bar. Below the header, there are tabs for 'Pull requests', 'Issues', and 'Gist'. On the right side of the header, there are buttons for 'Unwatch' (21), 'Unstar' (11), and 'Fork' (10). The main content area displays the repository details: 690 commits, 3 branches, 0 releases, and 8 contributors. A green button labeled 'New pull request' is visible. Below these stats, a list of recent commits is shown, each with a timestamp indicating when it was made.

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

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

Commit	Message	Date
	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

Screenshot of a GitHub pull request page for the repository `lewagon/www`.

The pull request is titled `Map on city show with cust` #225.

Status: Merged by Papillard 15 days ago.

Activity:

- Conversation: 6 comments
- Commits: 3
- Files changed: 6

Review:

- +68 -0

Comments:

ssaunier commented 16 days ago

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

Map showing Paris with a red pin indicating a location.

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 Issues page for the repository `lewagon/www`. The URL in the browser is <https://github.com/lewagon/www/issues>. The page title is "Issues · lewagon/www". The top navigation bar includes links for "Pull requests", "Issues", and "Gist", along with user profile and search icons. Below the title, the repository name "lewagon / www" is displayed, along with metrics: 21 Unwatched, 11 Unstarred, and 10 Forked. The main navigation tabs are "Code", "Issues 3", "Pull requests 2", "Wiki", "Pulse", "Graphs", and "Settings". A search bar with the query "is:issue is:open" is present, along with "Filters", "Labels", and "Milestones" buttons. A prominent green "New issue" button is located on the right. The issue list displays three open issues:

- ! 3 Open ✓ 87 Closed
- ! 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 at the bottom left says: "Click a checkbox on the left to edit multiple issues at once."

Forks

Open source contribution

Github pages

Hosting your website for free!

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

Thank you!