

# git & GitHub for Beginners

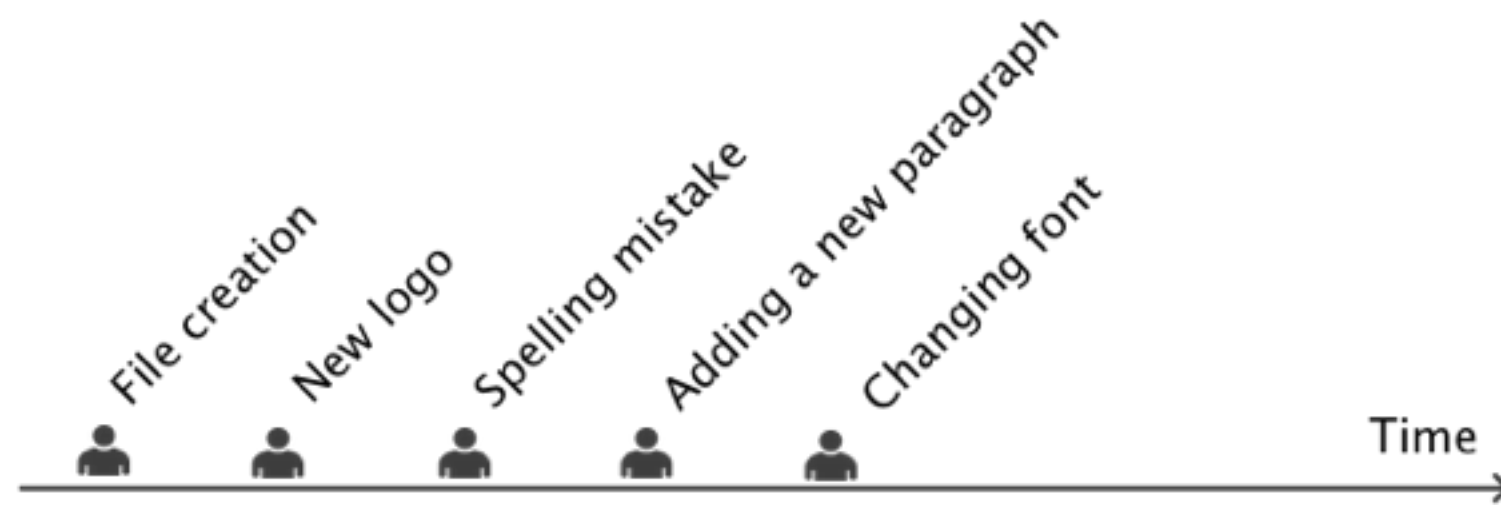
# **K**nowledge worker

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

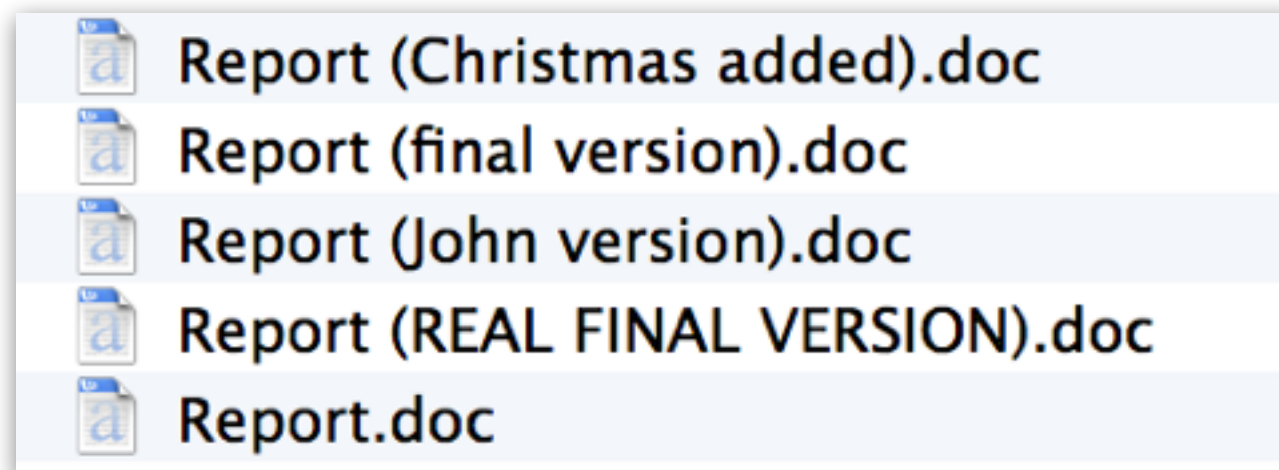
# **E**veryday workflow

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

# File life



# Manual version control

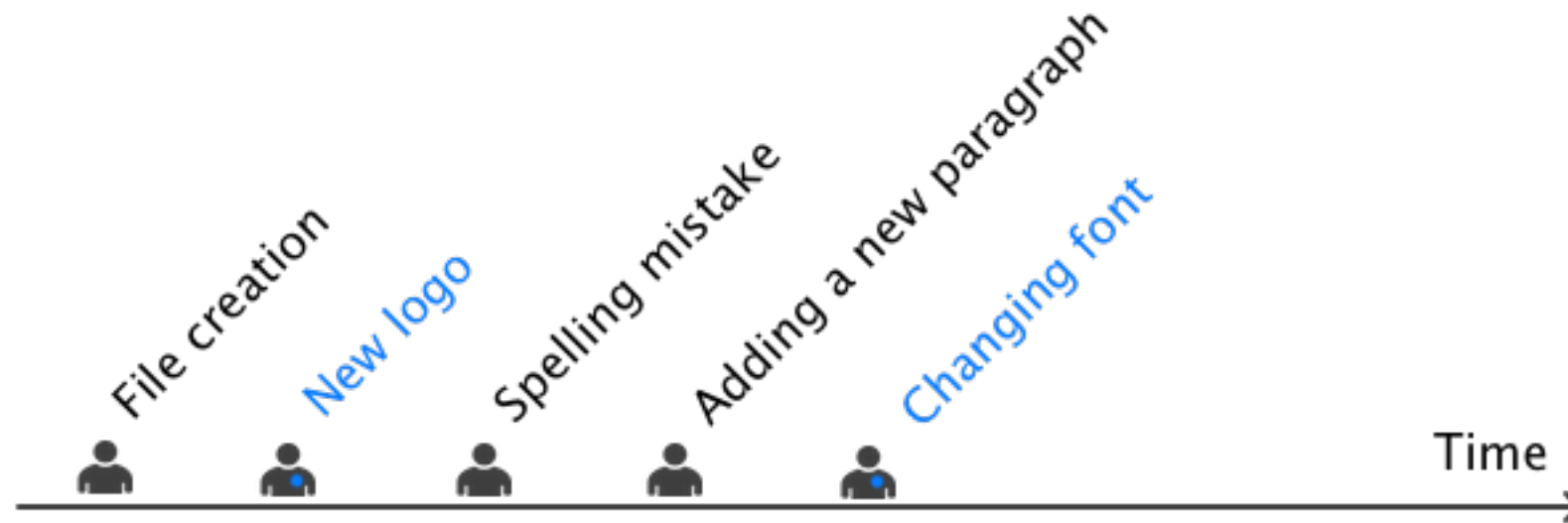


# **C**an we automate this?

**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"
```

# **B**asic 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

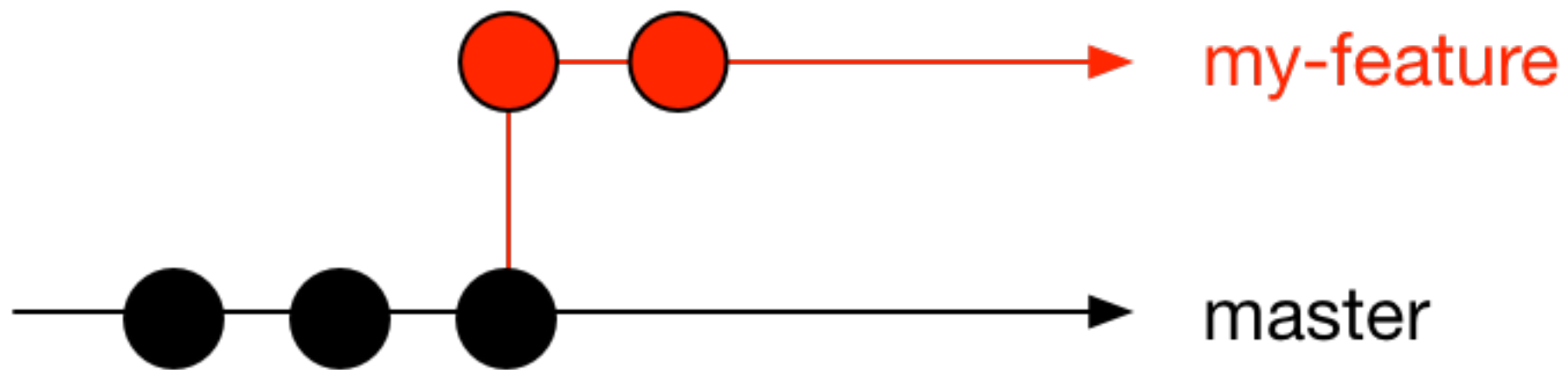
**One feature = One branch**

# Branch



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

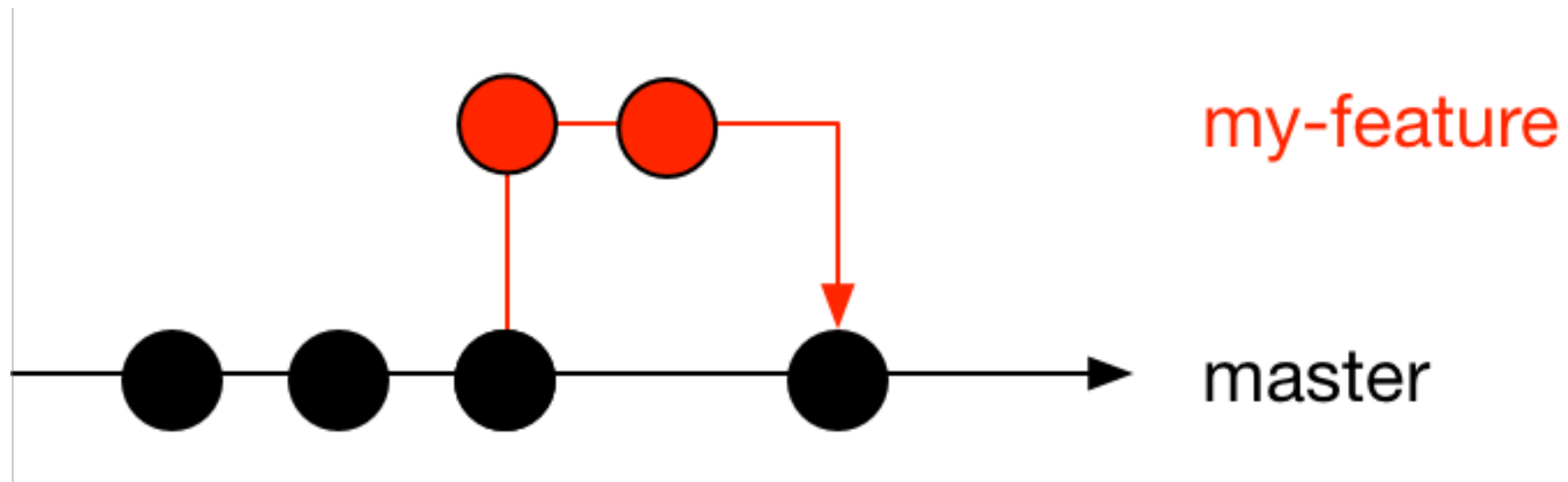
# Working in the Branch



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

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

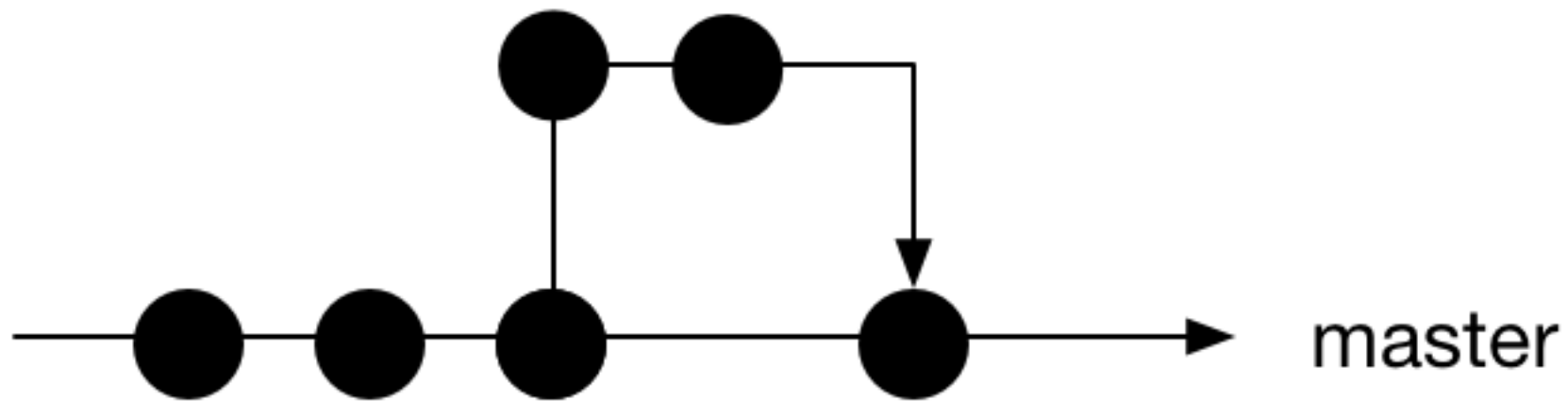
# Merge



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



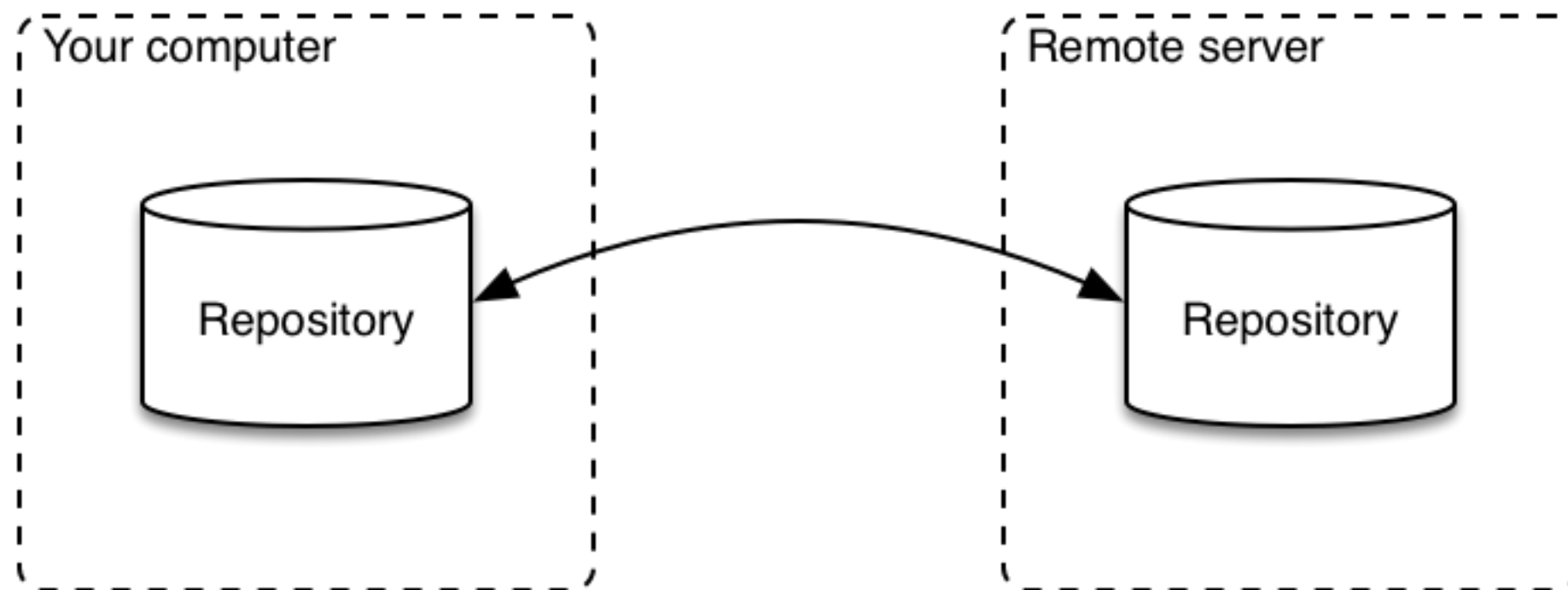
# Clean up



```
$ 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>
```

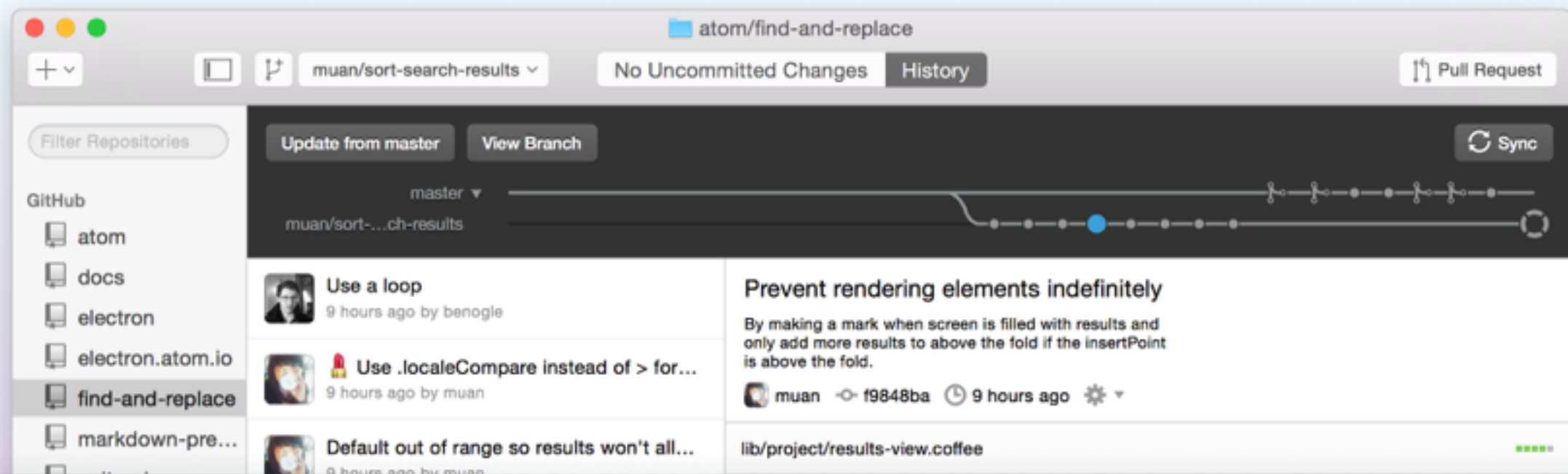
# What we'll use

```
$ git pull origin master
```



# Github Desktop app

[desktop.github.com](https://desktop.github.com)



Your GitHub workflow in one native app



Clone repositories



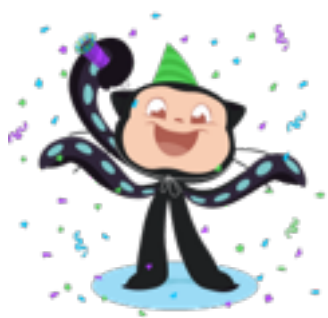
Create branches



Commit changes



Share code



# Profile page


dh (David Heinemeier Hansson)

https://github.com/dhh

Search GitHub

Pull requestsIssuesGist

+ -



David Heinemeier Hansson

dhh

Basecamp

Chicago, USA

david@basecamp.com

http://david.heinemeierhansson.com

Joined on Mar 10, 2008

8.1k

Followers

28

Starred

0

Following

Contributions

Repositories

Public activity

Unfollow

Popular repositories

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

rails/rails

Ruby on Rails

30,834 ★

rails/actioncable

Framework for real-time communication over ...

1,116 ★

rails/homepage

rubyonrails.org site anno 2015

15 ★

rails/weblog

18 ★

rails/actioncable-examples

Action Cable Examples

296 ★

Public contributions

MayJunJulAugSepOctNovDecJanFebMarApr

M

W

F

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

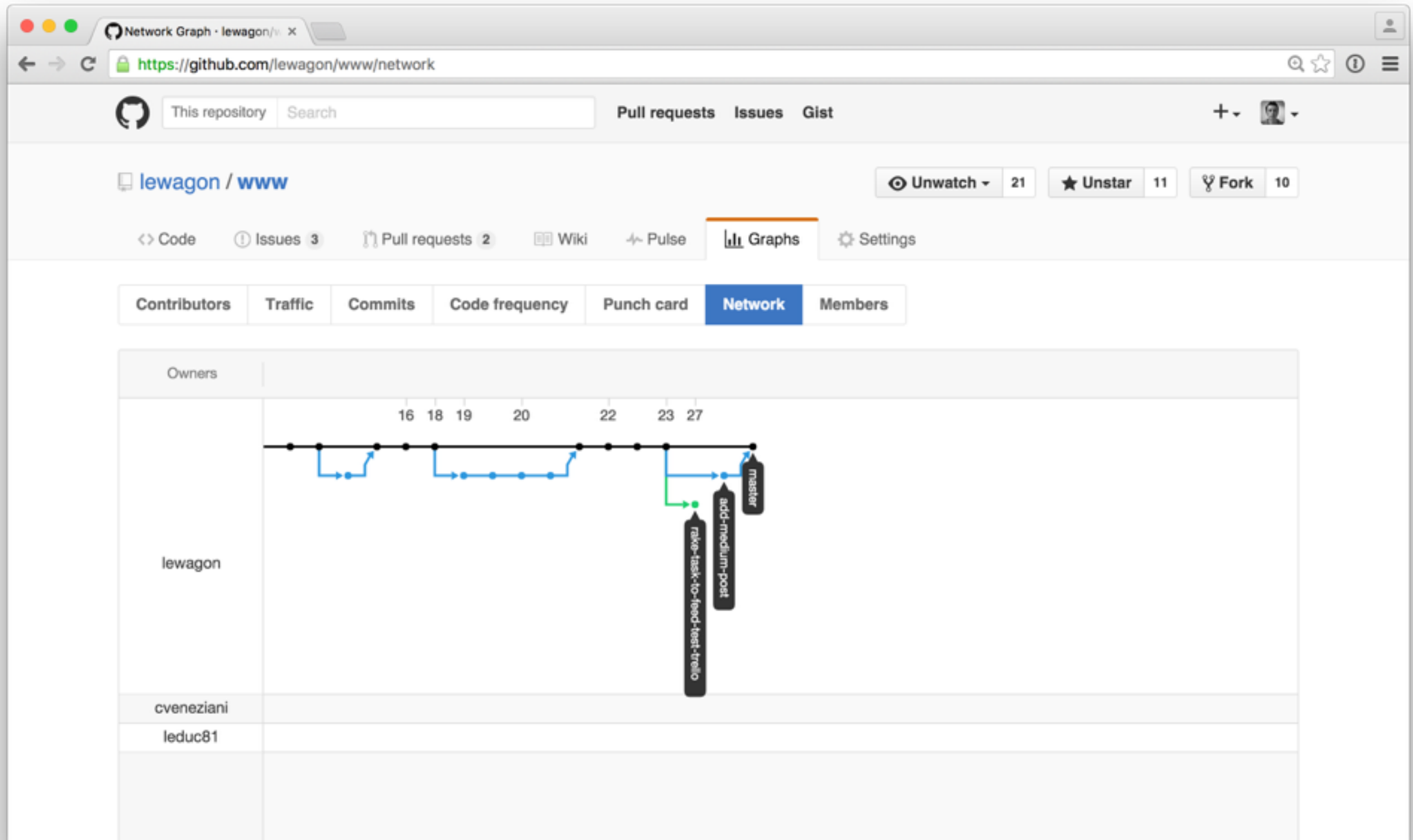
Less  More

# 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 page header includes the GitHub logo, a search bar, and navigation links for 'Pull requests', 'Issues', and 'Gist'. The repository name 'lewagon / www' is displayed, along with statistics: 21 watches, 11 stars, and 10 forks. Below the header, there are tabs for 'Code', 'Issues (3)', 'Pull requests (2)', 'Wiki', 'Pulse', 'Graphs', and 'Settings'. The repository description is 'The French innovative coding school for entrepreneurs' with a link to 'https://www.lewagon.com'. A progress bar shows 690 commits, 3 branches, 0 releases, and 8 contributors. A toolbar at the bottom of the header includes a branch selector set to 'master', a 'New pull request' button, and buttons for 'New file', 'Upload files', 'Find file', 'HTTPS', a URL field, a download icon, and a 'Download ZIP' button. The main content area shows a recent commit by 'ssaunier' titled 'Merge pull request #233 from lewagon/add-medium-post', with the latest commit hash '1d84ae3' and a timestamp of '21 hours ago'. Below this, a list of files and their commit messages is shown:

File	Commit Message	Time 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, each with a checkbox, a green exclamation mark icon, a title, a description, and a comment count.

Filters:  Labels Milestones [New issue](#)

<input type="checkbox"/>	<b>3 Open</b> ✓ 87 Closed	Author	Labels	Milestones	Assignee	Sort
<input type="checkbox"/>	<b>Add @matleroux's Medium post to the blog</b> #232 opened a day ago by monsieurpaillard					0
<input type="checkbox"/>	<b>Create `/paris/cowork`'s page</b> #220 opened 29 days ago by ssaunier					0
<input type="checkbox"/>	<b>Add a mention of franchisee on the city page</b> #209 opened on Jan 7 by ssaunier					0

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

© 2016 GitHub, Inc. [Terms](#) [Privacy](#) [Security](#) [Contact](#) [Help](#) [Status](#) [API](#) [Training](#) [Shop](#) [Blog](#) [About](#)

# Forks

**Open source contribution**



# Github pages

**Hosting your website for free!**

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

**Thank you!**