

git & GitHub for Beginners



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Optimal Message

Test up to five messages and a control group. Tongdao determines and sends the winning message every time

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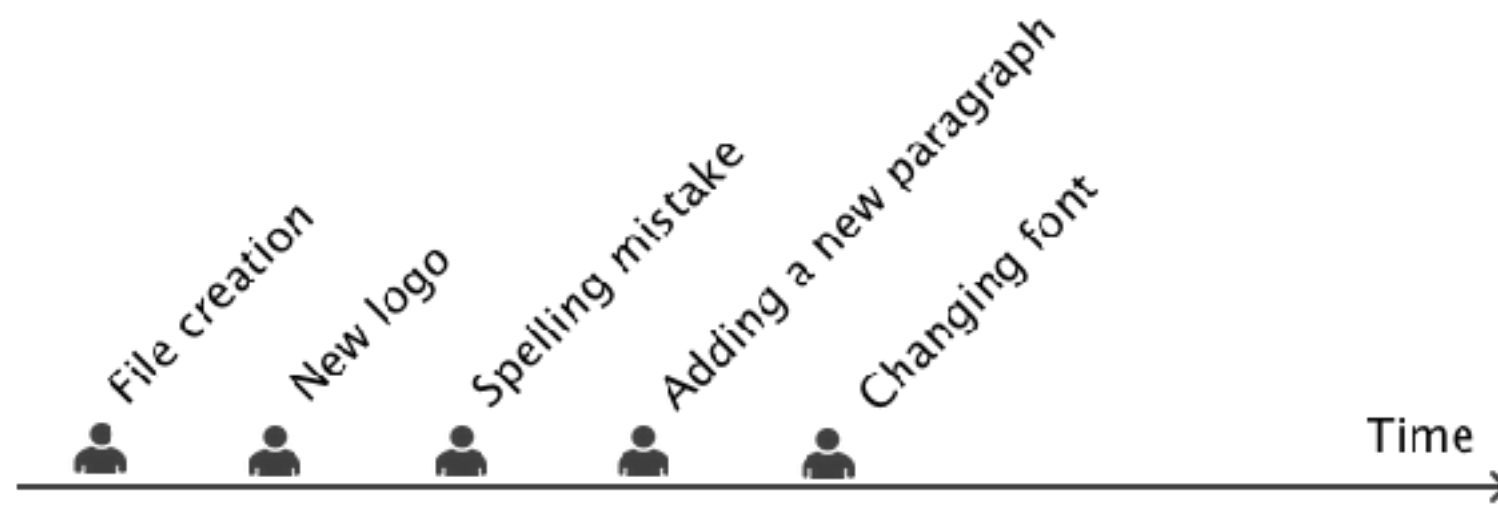
Knowledge worker

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

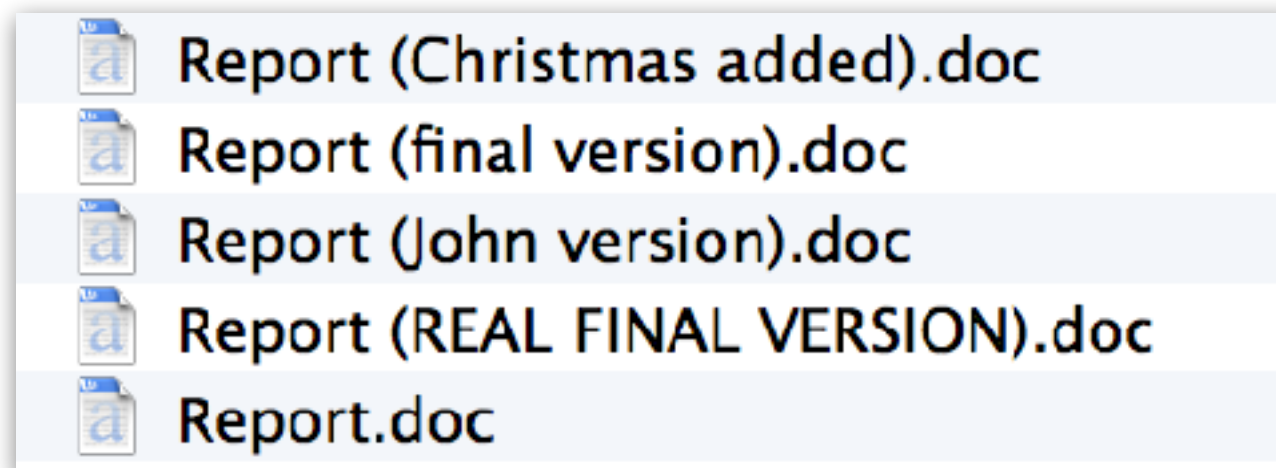
Everyday workflow

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

File life



Manual version control

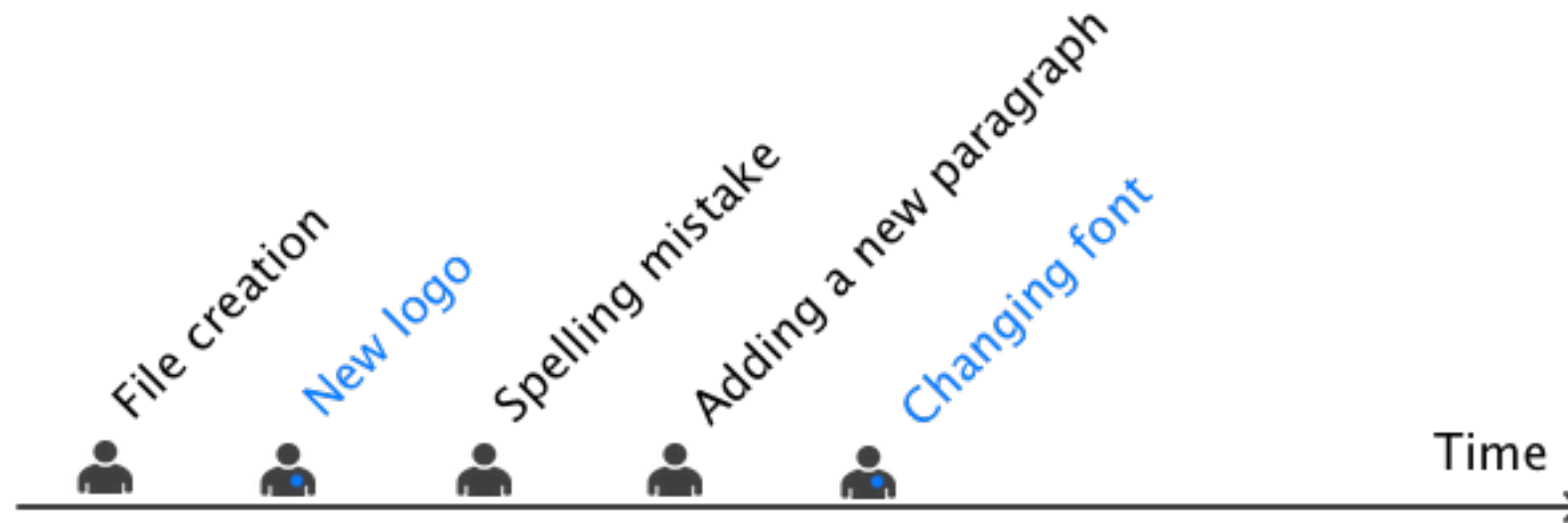


What do we need to know?

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 "John Doe"  
$ git config --global user.email "john@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

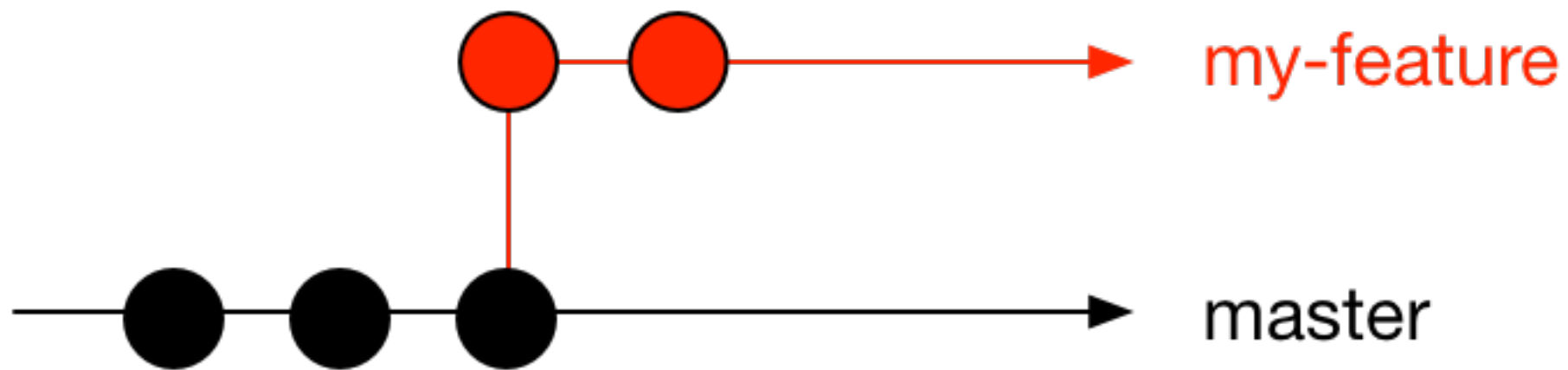
One feature = One branch

Branch



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

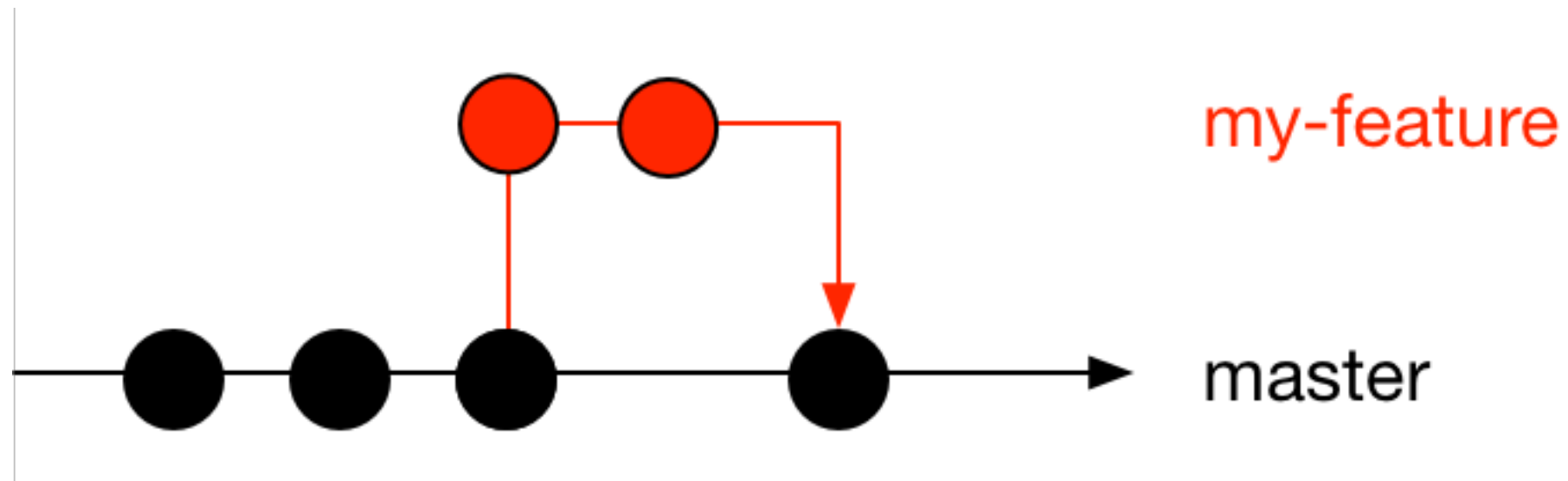

Working in the Branch



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

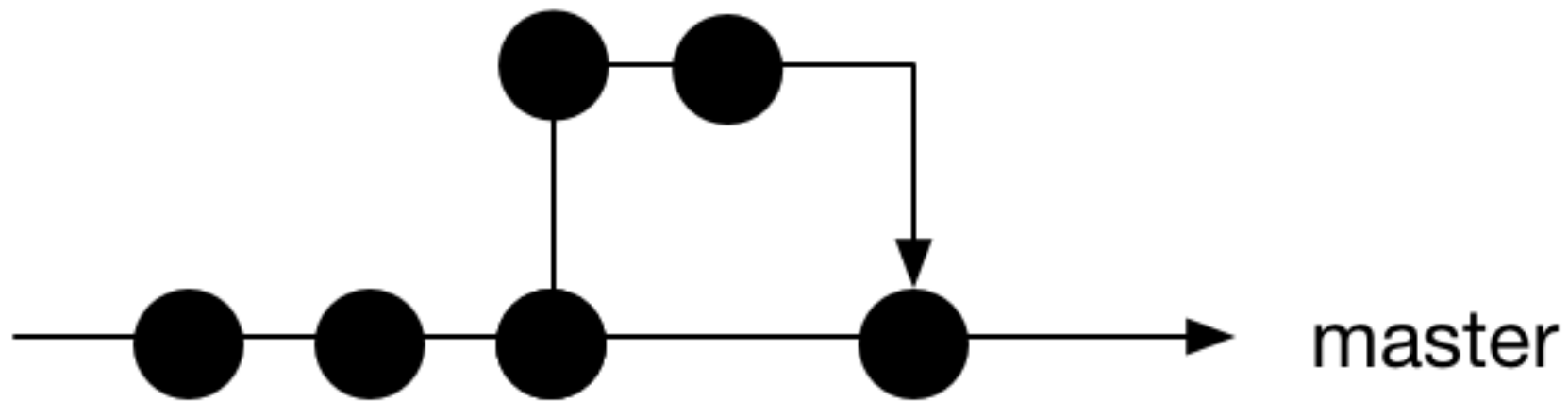
```
$ git commit (x2)
```

Merge



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

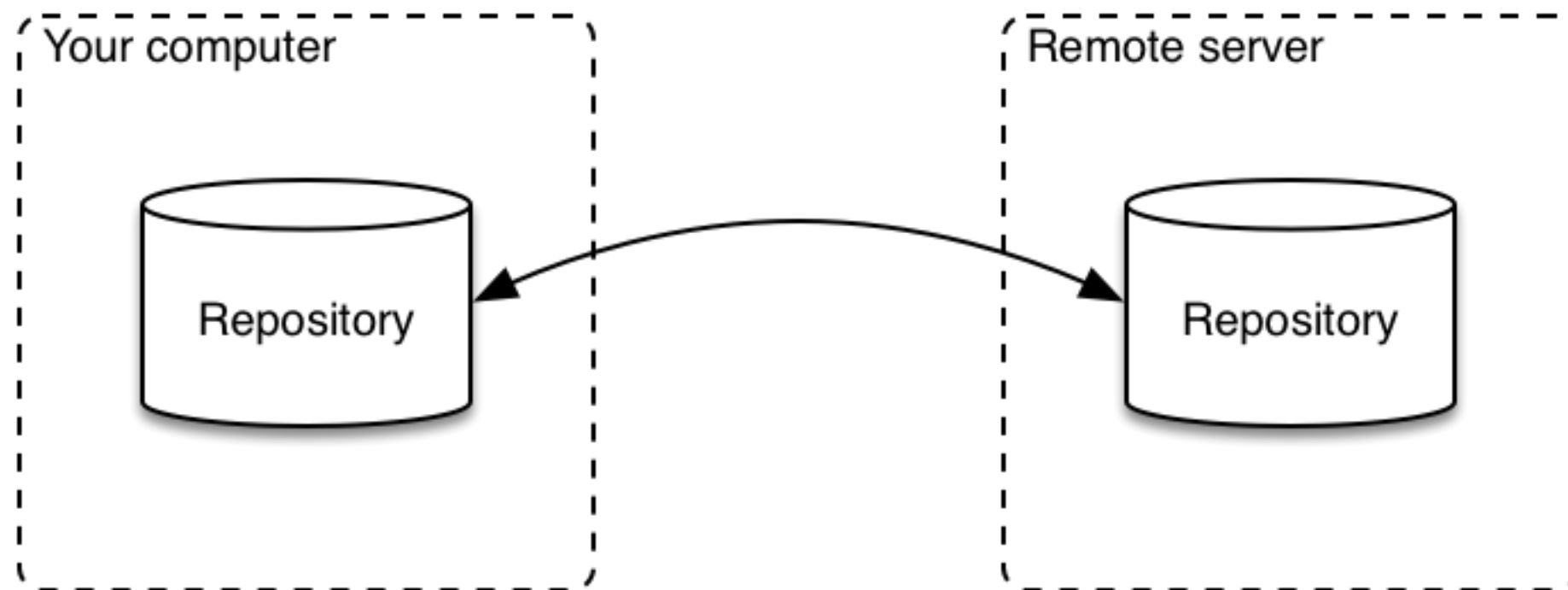
Clean up



```
$ 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 -u origin master
```

Pull

Generic command

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

What we'll use

```
$ git pull origin master
```

Clone

Generic command

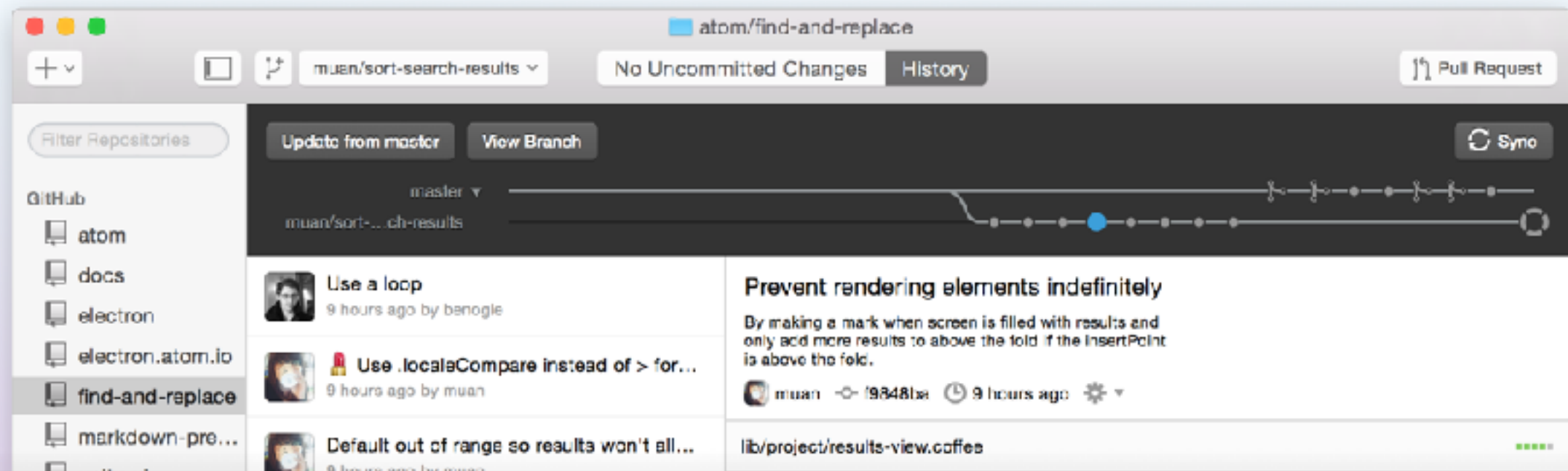
\$ git clone <repository>

What we'll use

\$ git clone <https://github.com/adrienmo/git101.git>

Github Desktop app

desktop.github.com



Your GitHub workflow in one native app



Clone repositories



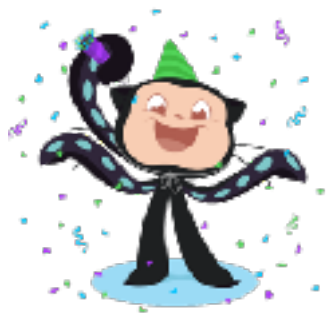
Create branches



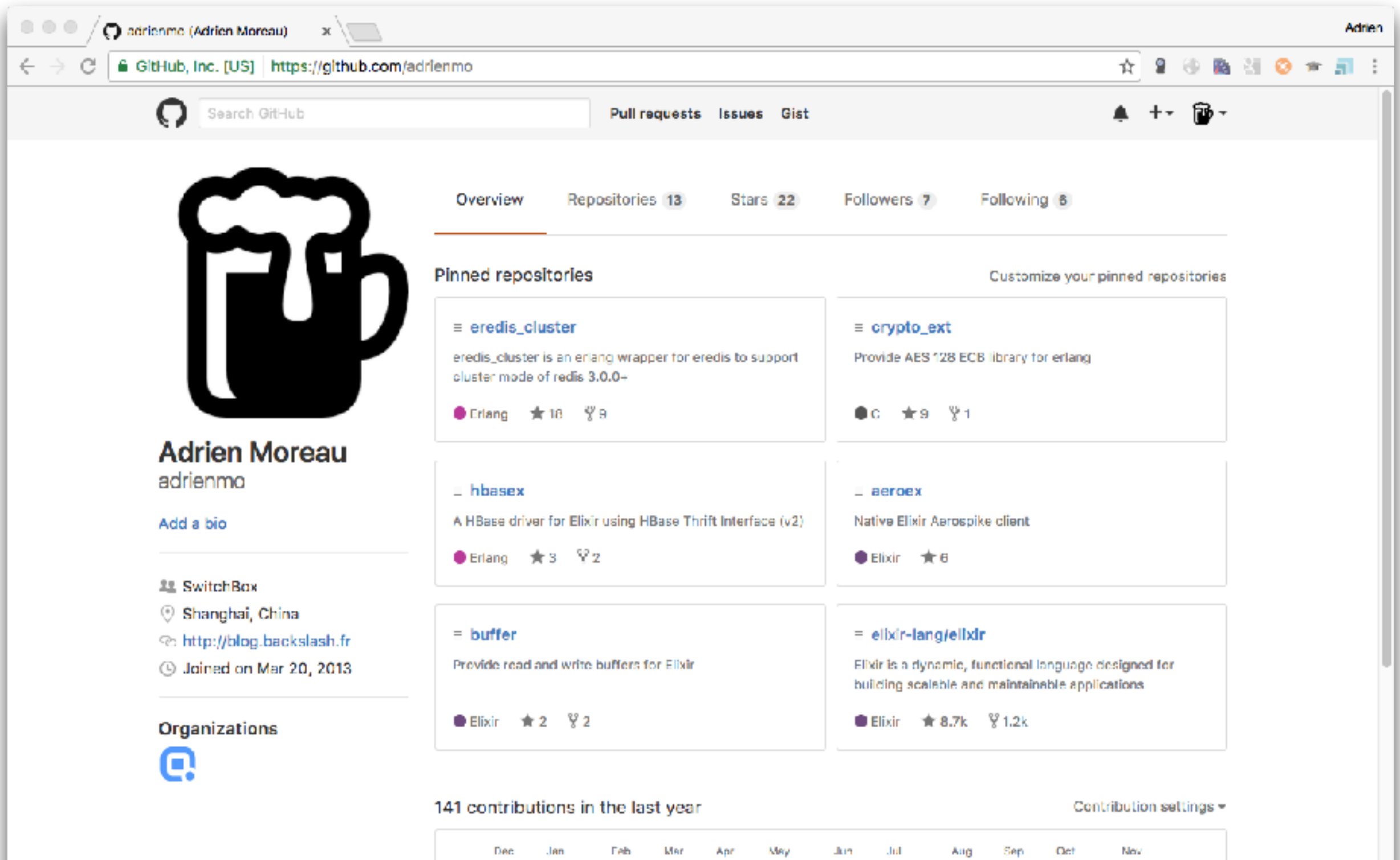
Commit changes



Share code



Profile page



The screenshot shows a web browser window displaying the GitHub profile of Adrien Moreau. The browser's address bar shows the URL `https://github.com/adrienmo`. The GitHub navigation bar at the top includes a search bar, links for Pull requests, Issues, and Gist, and user avatars for notifications, a dropdown menu, and the user's profile.

The profile header features a large black silhouette of a beer mug with foam. Below it, the name **Adrien Moreau** and the username `adrienmo` are displayed, along with a link to "Add a bio".

On the left sidebar, the user's bio is shown: "SwitchBox", "Shanghai, China", a link to `http://blog.backslash.fr`, and "Joined on Mar 20, 2013". Below this is the "Organizations" section with a GitHub logo.

The main content area is titled "Overview" and shows statistics: "Repositories 13", "Stars 22", "Followers 7", and "Following 8". The "Pinned repositories" section lists six repositories in a grid:

- eredis_cluster**: eredis_cluster is an erlang wrapper for eredis to support cluster mode of redis 3.0.0+ (Erlang, 10 stars, 9 forks)
- crypto_ext**: Provide AES 128 ECB library for erlang (C, 9 stars, 1 fork)
- hbasex**: A HBase driver for Elixir using HBase Thrift Interface (v2) (Erlang, 3 stars, 2 forks)
- aeroex**: Native Elixir Aerospike client (Elixir, 6 stars)
- buffer**: Provide read and write buffers for Elixir (Elixir, 2 stars, 2 forks)
- elixir-lang/elixir**: Elixir is a dynamic, functional language designed for building scalable and maintainable applications (Elixir, 8.7k stars, 1.2k forks)

At the bottom, it shows "141 contributions in the last year" and a "Contribution settings" dropdown. A calendar bar at the very bottom displays the months from Dec to Nov.

Repository page

The screenshot shows a web browser window displaying the GitHub repository page for `adrienmo/eredis_cluster`. The browser's address bar shows the URL `https://github.com/adrienmo/eredis_cluster`. The repository page header includes the repository name, a search bar, and navigation links for Pull requests, Issues, and Gist. The repository is owned by `adrienmo` and has 18 stars and 9 forks. The main content area shows the repository description: `eredis_cluster` is an erlang wrapper for eredis to support cluster mode of redis 3.0.0+ — Edit. Below the description, there are statistics: 77 commits, 1 branch, 17 releases, 4 contributors, and MIT license. A progress bar is visible. The 'Code' tab is selected, showing a list of files and folders with their commit messages and dates. The files listed are `include`, `src`, `test`, `.editorconfig`, `.gitignore`, `.travis.yml`, `LICENSE`, and `Makedefs`. The commit messages and dates are: `Add atomic field update` (11 months ago), `Add eval command, edit Readme file` (7 months ago), `Add eval command, edit Readme file` (7 months ago), `Add eval command, edit Readme file` (7 months ago), `Add native crc16` (a year ago), `add support for eval and evalsha command, add travis` (11 months ago), `fix failover and slowdown connection repeat on errors, add back trans...` (a year ago), and `add support for eval and evalsha command, add travis` (11 months ago).

adrienmo/eredis_cluster: eredis x

GitHub, Inc. [US] | https://github.com/adrienmo/eredis_cluster

This repository Search Pull requests Issues Gist

adrienmo / eredis_cluster Unwatch 8 Star 18 Fork 9

Code Issues 0 Pull requests 0 Projects 0 Wiki Pulse Graphs Settings

eredis_cluster is an erlang wrapper for eredis to support cluster mode of redis 3.0.0+ — Edit

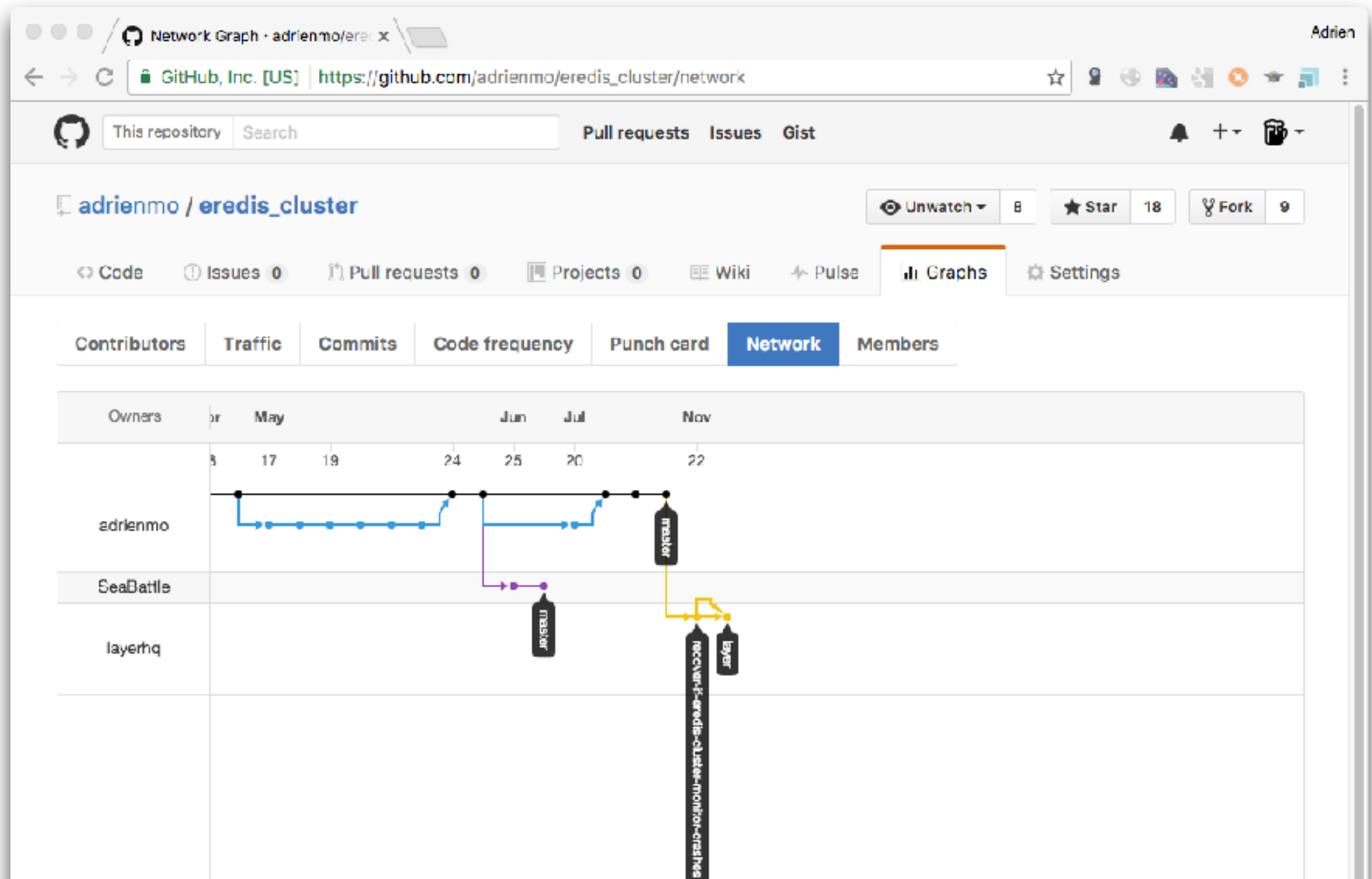
77 commits 1 branch 17 releases 4 contributors MIT

Branch: master New pull request Create new file Upload files Find file Clone or download

adrienmo add mix.exs to hex package Latest commit: b838f5f on Jul 20

include	Add atomic field update	11 months ago
src	Add eval command, edit Readme file	7 months ago
test	Add eval command, edit Readme file	7 months ago
.editorconfig	Add eval command, edit Readme file	7 months ago
.gitignore	Add native crc16	a year ago
.travis.yml	add support for eval and evalsha command, add travis	11 months ago
LICENSE	fix failover and slowdown connection repeat on errors, add back trans...	a year ago
Makedefs	add support for eval and evalsha command, add travis	11 months ago

Commits & Branches



Pull requests

The screenshot shows a GitHub pull request interface. At the top, the browser address bar displays the URL `https://github.com/adrienmo/eredis_cluster/pull/4`. The repository name `adrienmo / eredis_cluster` is shown, along with statistics: 8 Unwatch, 18 Stars, and 9 Forks. The pull request title is `Pipeline on several nodes #4`, and it is marked as **Merged**. A summary states: `adrienmo merged 6 commits into adrienmo:master from paramahansa:feature on May 24`. Below this, statistics show 8 Conversations, 6 Commits, and 4 Files changed, with a net change of +73 -10 lines. A comment from `paramahansa` dated May 17 explains the changes: 1. In Redis 3.2.0 cluster slots was request was changed, so I add its handling with backward compatibility; 2. Add `qmn/1` - multi node request, that allows split pipe request by redis nodes (pools) and merge responses so it may look like pipe request. The right sidebar shows sections for Reviewers (No reviews—request one), Assignees (No one—assign yourself), Labels (None yet), and Projects (None yet).

Pipeline on several nodes by `px`

GitHub, Inc. [US] | `https://github.com/adrienmo/eredis_cluster/pull/4`

This repository Search Pull requests Issues Gist

adrienmo / eredis_cluster

Unwatch 8 Star 18 Fork 9

Code Issues 0 Pull requests 0 Projects 0 Wiki Pulse Graphs Settings

Pipeline on several nodes #4

Merged adrienmo merged 6 commits into adrienmo:master from paramahansa:feature on May 24

Conversation 8 Commits 6 Files changed 4 +73 -10

paramahansa commented on May 17 • edited Contributor

Hi!

Here are two changes:

1. In Redis 3.2.0 cluster slots was request was changed, so I add its handling with backward compatibility
2. Add `qmn/1` - multi node request, that allows split pipe request by redis nodes (pools) and merge responses so it may look like pipe request.

paramahansa added some commits on May 17

add support for redis 3.2.0 cluster slots command 5953130

Reviewers: No reviews—request one

Assignees: No one—assign yourself

Labels: None yet

Projects: None yet

Issues

The screenshot shows a web browser window displaying the GitHub interface for the repository 'adrienmo/redis_cluster'. The browser's address bar shows the URL 'https://github.com/adrienmo/redis_cluster/issues?q=is%3Aissue+is%3Aclosed'. The repository page header includes the repository name, a search bar, and navigation links for 'Pull requests', 'Issues', and 'Gist'. The 'Issues' tab is selected, showing a list of 3 closed issues. The issues are: 'redis-cluster configuration' (closed on Oct 10), 'eval/evalsha support' (closed on Jan 11), and 'License' (closed on Oct 10, 2015). A 'New issue' button is visible on the right. A 'ProTip!' message at the bottom suggests updating the search query to 'updated:>2016-12-05'.

Issues • adrienmo/redis_cluster

GitHub, Inc. [US] | https://github.com/adrienmo/redis_cluster/issues?q=is%3Aissue+is%3Aclosed

This repository Search Pull requests Issues Gist

adrienmo / redis_cluster

Unwatch 8 Star 18 Fork 9

Code Issues 0 Pull requests 0 Projects 0 Wiki Pulse Graphs Settings

Filters is:issue is:closed Labels Milestones New issue

Clear current search query, filters, and sorts

<input type="checkbox"/> 0 Open ✓ 3 Closed	Author	Labels	Milestones	Assignee	Sort
<input type="checkbox"/> redis-cluster configuration #6 by Moolica23 was closed on Oct 10					1
<input type="checkbox"/> eval/evalsha support #3 by paramahansa was closed on Jan 11					3
<input type="checkbox"/> License #2 by deheckoway was closed on Oct 10, 2015					3

ProTip! Updated in the last three days: [updated:>2016-12-05](#).

Forks

Open source contribution

Github pages

Hosting your website for free!

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

Thank you!