

# MAKING GIT WORK FOR YOU



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# GitHub Windows

[Overview](#) [Help](#) [Release Notes](#)

The easiest way to use GitHub on Windows.



Download GitHub for Windows



Windows XP, Vista, 7 & 8

INSTALL THE GITHUB CLIENT

<https://windows.github.com/>

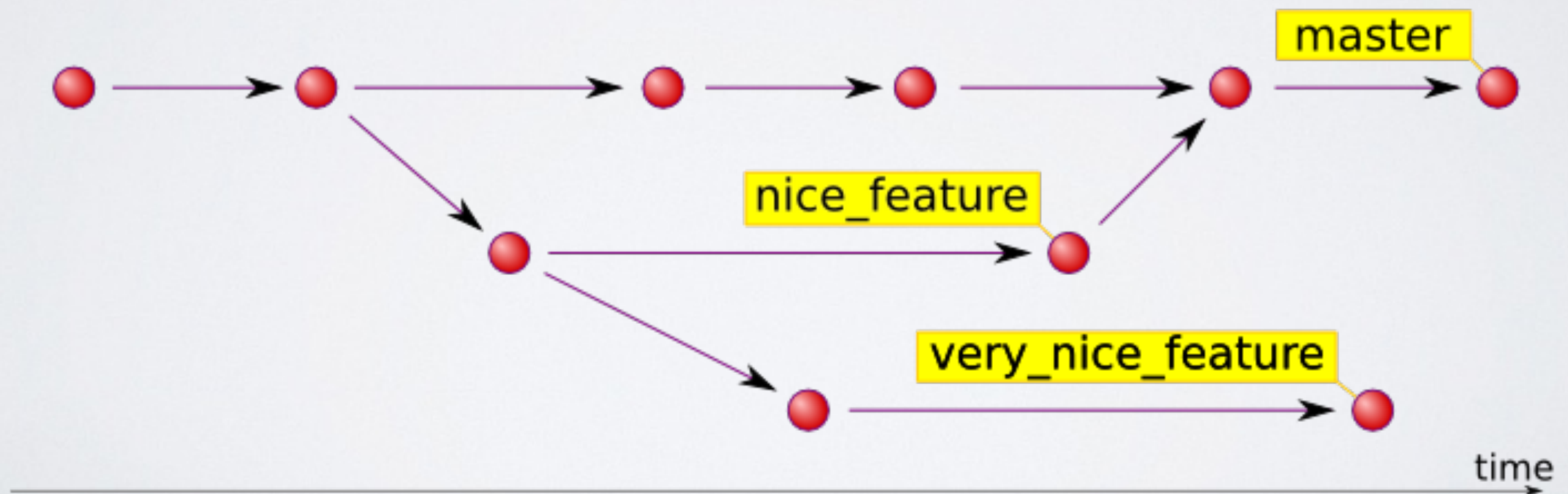
# WHY GIT/GITHUB?

- GitHub: social network for information and tool for collaboratively creating content/knowledge
  - Code
  - Websites
  - Legislation
  - Flyers
  - Journal Articles
  - Datasets (!!!!)
  - Job Applications
  - Images (play spot the difference!!!)



# WHY GIT/GITHUB?

- It allows you to keep track of file versions, changes, suggested edits, issues, comments...



# WHY GIT/GITHUB?

- Built around an Open Source ideology
- Make information freely accessible
- Build off someone else's ideas
- Contribute to others' ideas
- Have others contribute to your ideas

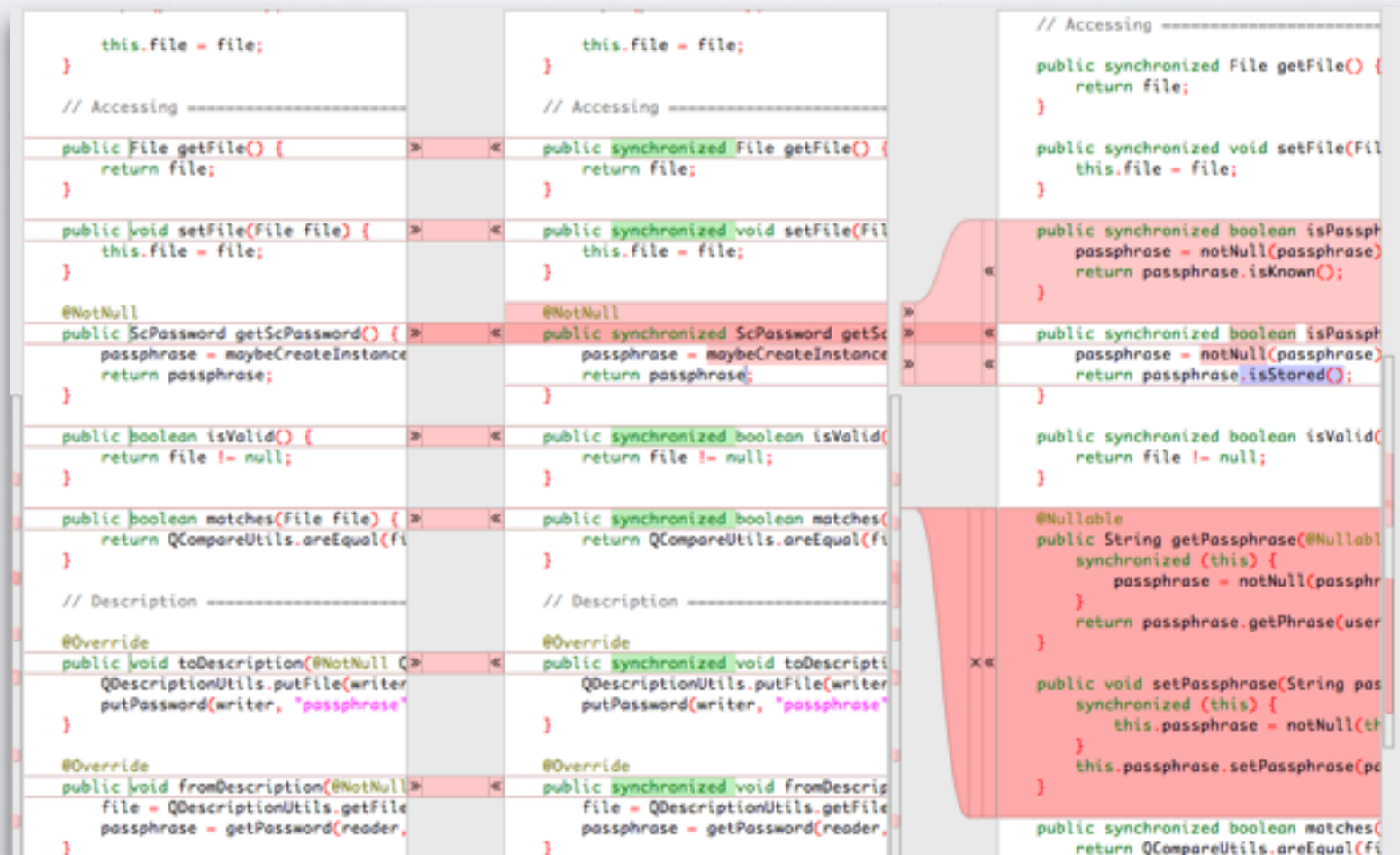
# WHY GIT/GITHUB?

- Simultaneous edits by different users won't destroy each other.
- Pick and choose which edits stay, which get ignored.
- Undo one set of edits from last week without losing all the other subsequent changes



# WHY GIT/GITHUB?

- Emily copy edits while I insert references.  
Later we can merge our changes!



# **git** VS. **GitHub**

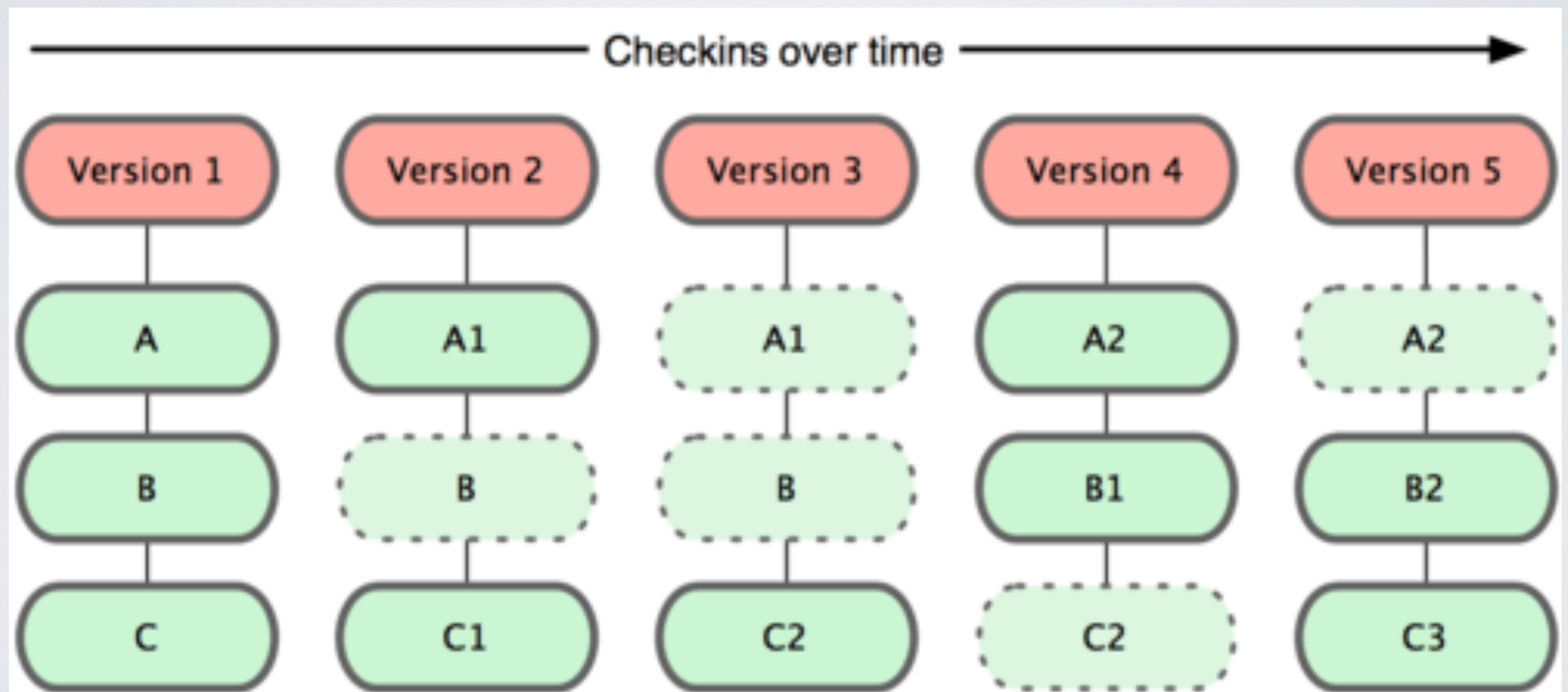
- System for managing code repositories
  - Lives on your local computer
  - Locally used by the individual
  - Command-line based
- Web service to host your Git repositories
  - Lives in the “cloud”
  - For individuals and groups
  - Simplifies sharing and modifying repos
  - Web-based plus GUIs or command-line



# WHAT IS A REPOSITORY?

- A set of files and directories.
- Historical record of changes made to the files and directories.
- A set of “commit” objects.
- A set of references to each commit object, called “heads”.

# WHAT IS A REPOSITORY?



# LET'S GET STARTED!

- Create a GitHub account
- Create a new repository
- Make your first commit
- Fork an existing repository



# Build software better, together.

Powerful collaboration, code review, and code management for open source and private projects. Need private repositories?

Upgraded plans start at \$7/mo.

Use at least one lowercase letter, one numeral, and seven characters.

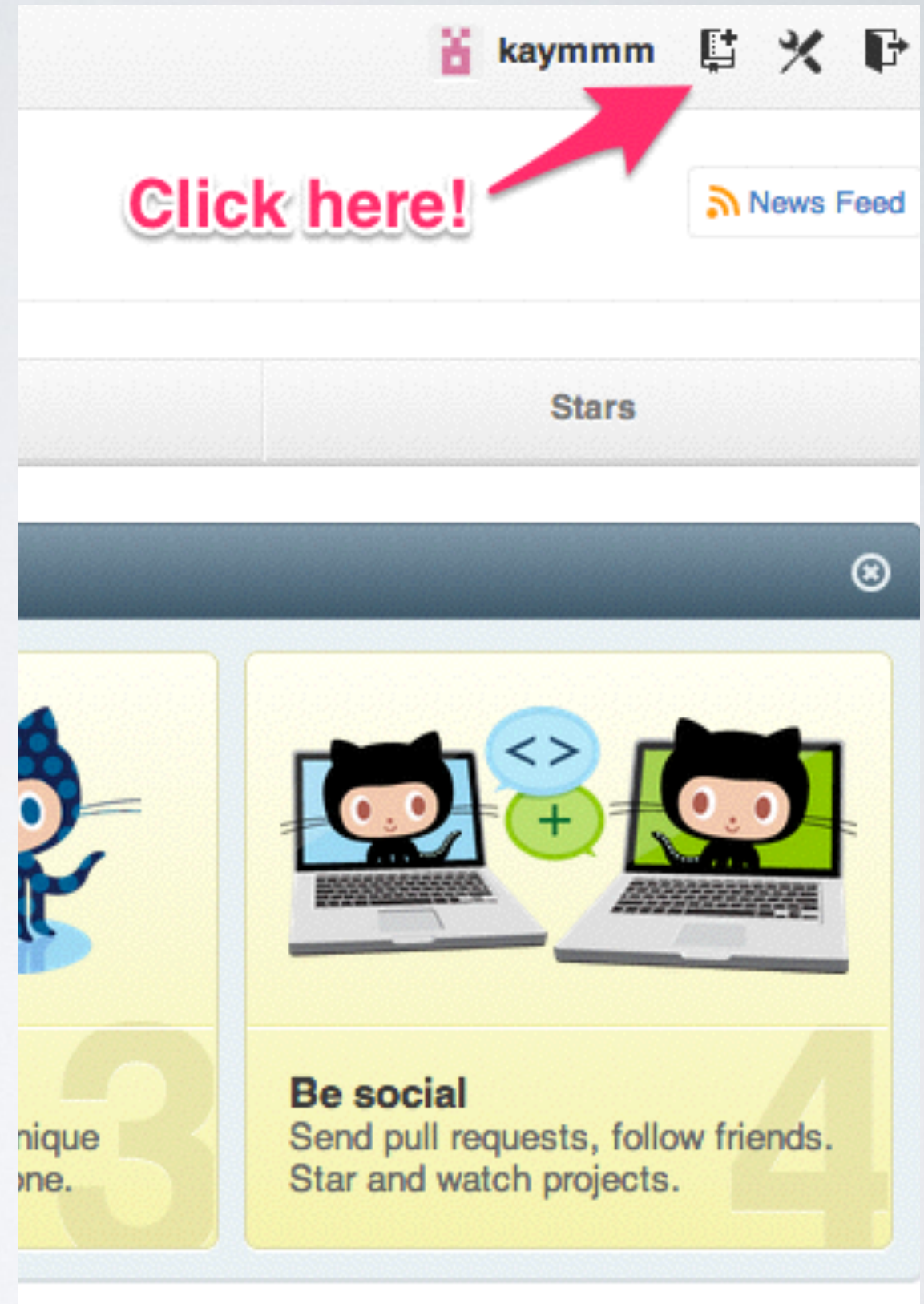
**Sign up for GitHub**

By clicking "Sign up for GitHub", you agree to our [terms of service](#) and [privacy policy](#).

## CREATE A GITHUB ACCOUNT

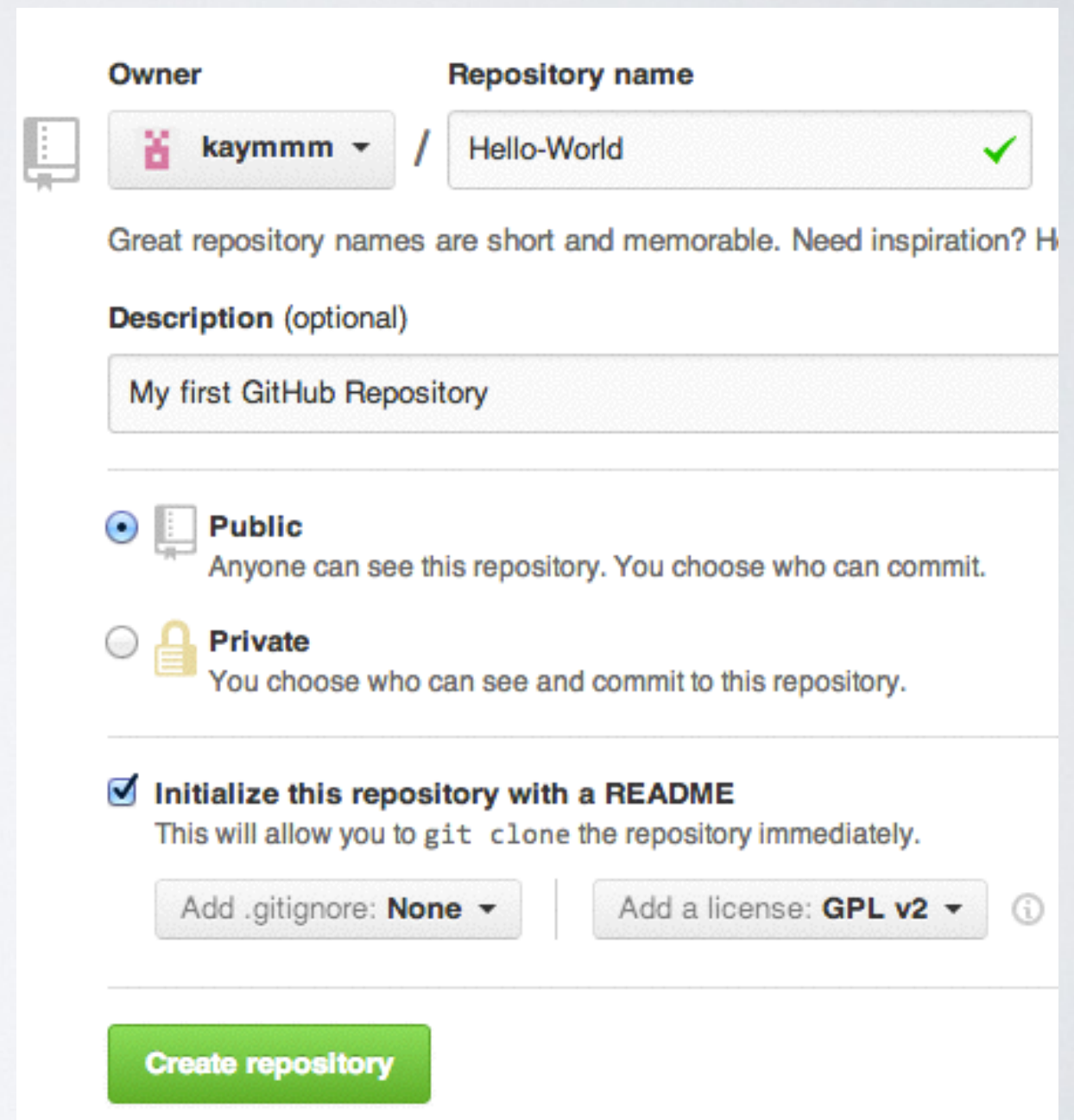
<https://github.com/>

# CREATE A NEW REPO(SITORY)



# CREATE A NEW REPO

- Give it a name
- Add a description
- Keep it public for now
- Initialize it with a “README” file
- Add a license!  
(I like the GPLv2)



The screenshot shows the GitHub 'Create a new repository' form. At the top, the 'Owner' is set to 'kaymmm' and the 'Repository name' is 'Hello-World', which is marked with a green checkmark. Below this, a hint says 'Great repository names are short and memorable. Need inspiration? H'. The 'Description (optional)' field contains 'My first GitHub Repository'. Under the 'Visibility' section, 'Public' is selected with a radio button, and 'Private' is unselected. The 'Initialize this repository with a README' checkbox is checked. At the bottom, there are dropdowns for 'Add .gitignore: None' and 'Add a license: GPLv2', followed by a green 'Create repository' button.

Owner: kaymmm / Repository name: Hello-World ✓

Great repository names are short and memorable. Need inspiration? H

Description (optional): My first GitHub Repository

☒ **Public**  
Anyone can see this repository. You choose who can commit.

☐ **Private**  
You choose who can see and commit to this repository.

☒ **Initialize this repository with a README**  
This will allow you to `git clone` the repository immediately.

Add .gitignore: None | Add a license: GPLv2 ⓘ

**Create repository**



**MAKE YOUR FIRST COMMIT**

1 commit

1 branch

branch: master

Hello-World /

Initial commit

kaymmm authored 2 minutes ago

LICENSE

Initial commit

README.md

Initial commit

README.md



branch: master

Hello-World / README.md

kaymmm 4 minutes ago Initial commit

1 contributor

file | 5 lines (3 sloc) | 0.052 kb

Open

Edit

Raw

Blame


History



Delete

# Hello-World

---

My first GitHub Repository

Hello-World / README.md  or cancel


 Code Preview 

```
1 Hello-World
2 =====
3
4 My first GitHub Repository
5
6 ## Look at the cool things we can do!
7 * Track changes
8 * Merge different versions
9 * Fork someone's existing project
10
11 # Glossary
12 (taken from [http://readwrite.com/2013/09/30/understandi
```



24 you can change it.

25 Branch




**Commit summary:**

Update README.md to add List of Features, Glossary, and Git Commands

**Extended description: (optional)**

Initial entries in the glossary and commands from readwrite.com

 **kaymmm**  
kmiyake@gc.cuny.edu

**Cancel** **Commit Changes**





file | 57 lines (35 sloc) | 5.182 kb



Open

Edit

Raw

Blame

History

Delete

# Hello-World

---

My first GitHub Repository

## Look at the cool things we can do!

---

- Track changes
- Merge different versions
- Fork someone's existing project

## Glossary

---

(taken from [readwrite.com](#) and [knight lab](#)) Repository : A directory or storage space where your projects can live. Sometimes GitHub users shorten this to "repo." It can be local to a folder on your computer, or it can be a storage space on GitHub or another

TA-DA!

octocat / Spoon-Knife

Watch 149 Star 9,969 Fork 20,734

1.

This repo is for demonstration purposes only. Comments and issues may or may not be responded to.

8 commits 1 branch 0 releases 3 contributors

branch: master Spoon-Knife

Merged pull request #9. 16 comments

GitHub Merge Button authored 3 years ago latest commit bdd3996d38

README	+ Heh.	3 years ago
forkit.gif	First commit	3 years ago
index.html	Added hidden double rainbow reference; added title	3 years ago

2.

README

All that's missing is the fork. Heh.

Code

Issues 982

Pull Requests 746

Pulse

Graphs

Network

HTTPS clone URL

<https://github.com>

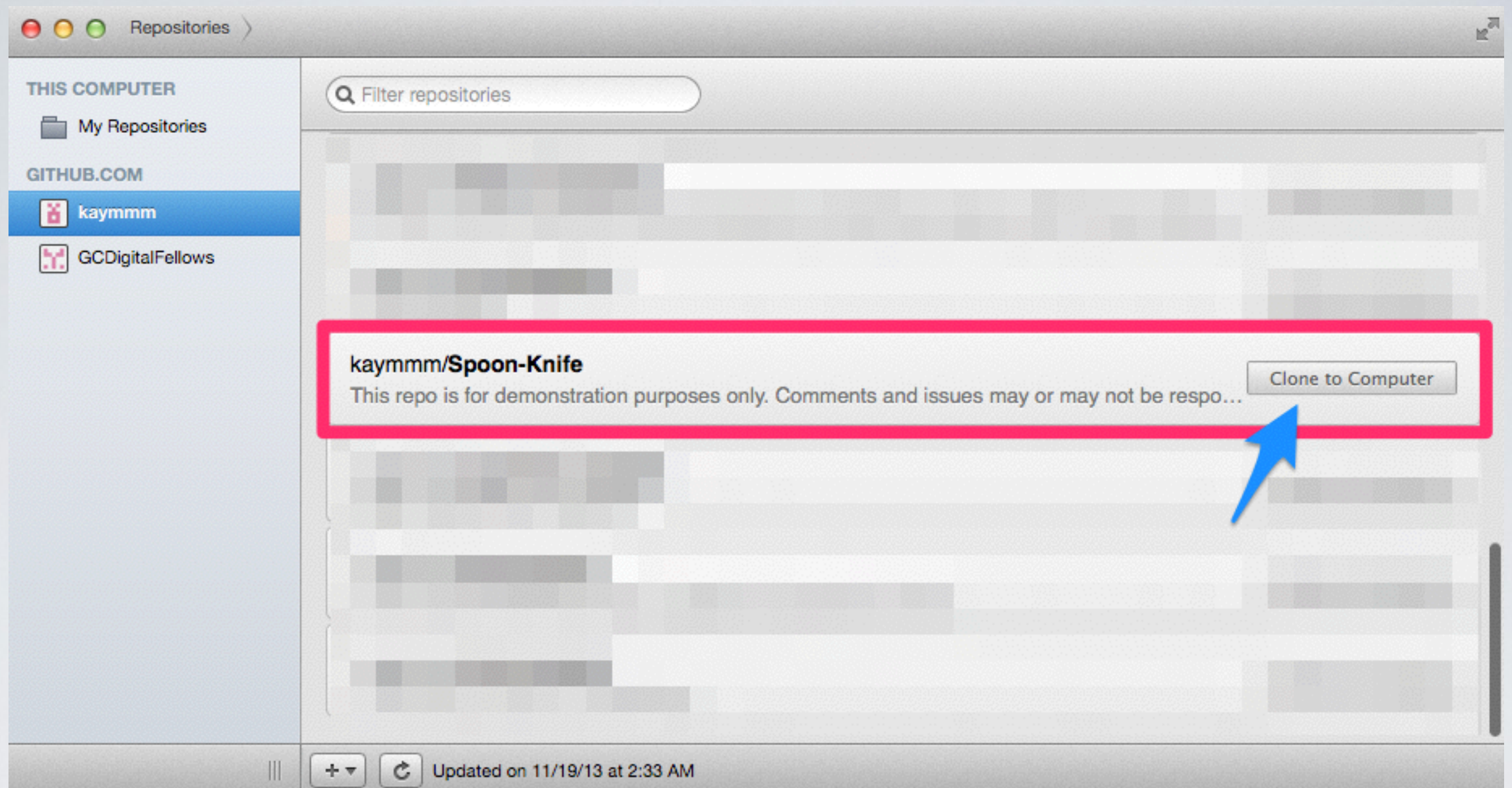
You can clone with [HTTPS](#), [SSH](#), or [Subversion](#).

Clone in Desktop

Download ZIP

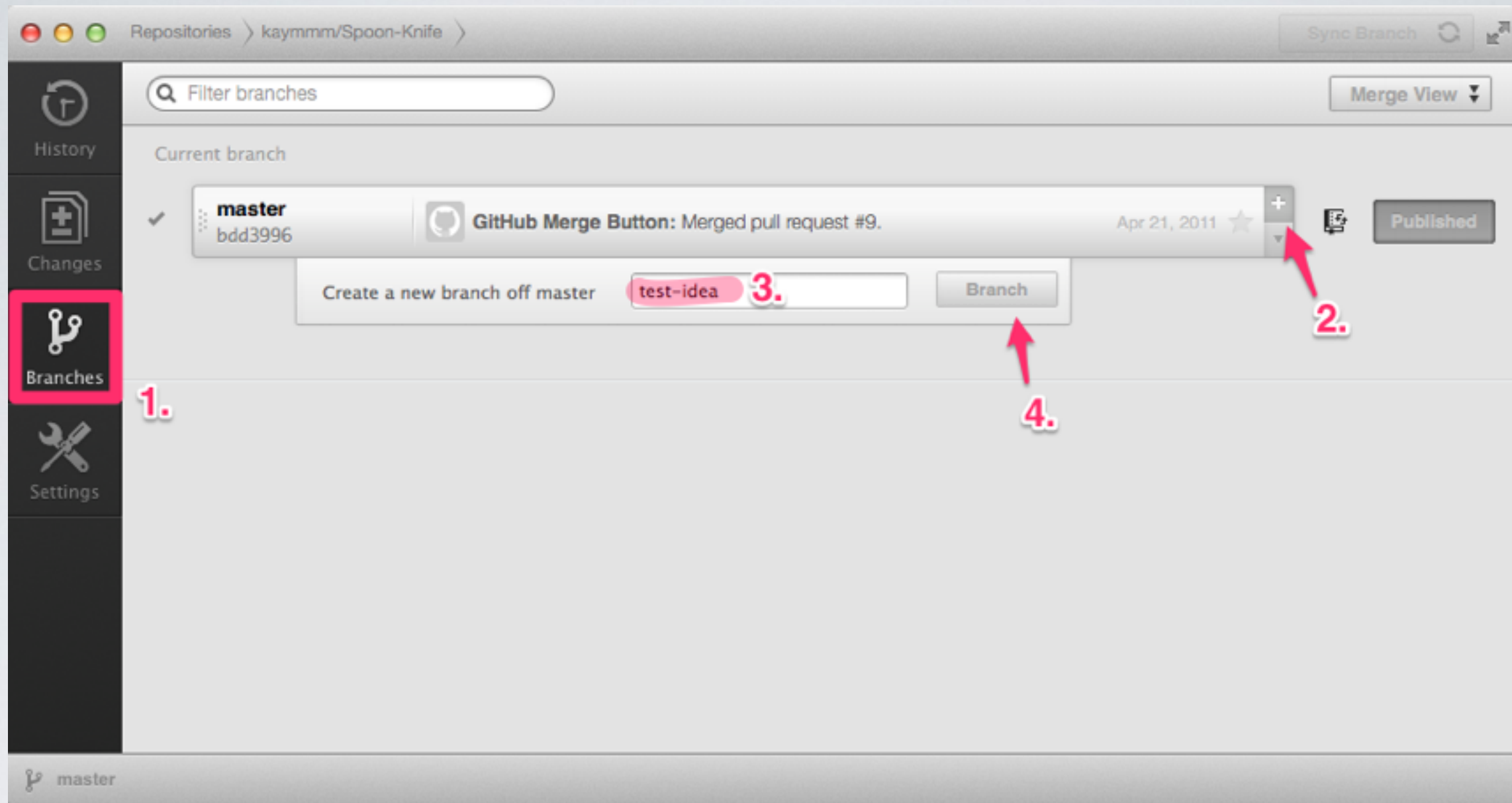
# FORK AN EXISTING REPO

<https://github.com/octocat/Spoon-Knife>



# CLONE YOUR FORKED REPO





# CREATE A NEW BRANCH

this way your master branch remains clean until you know your branched changes work!

# MAKE SOME EDITS

- View index.html in a browser.
- Type the “Konami Code”...
  - up, up, down, down, left, right, left, right, B, A
- Try to get rid of the popup (try escape, etc.)

# MAKE SOME EDITS

- Open index.html in a text editor
- Below line 39 enter the following then save:

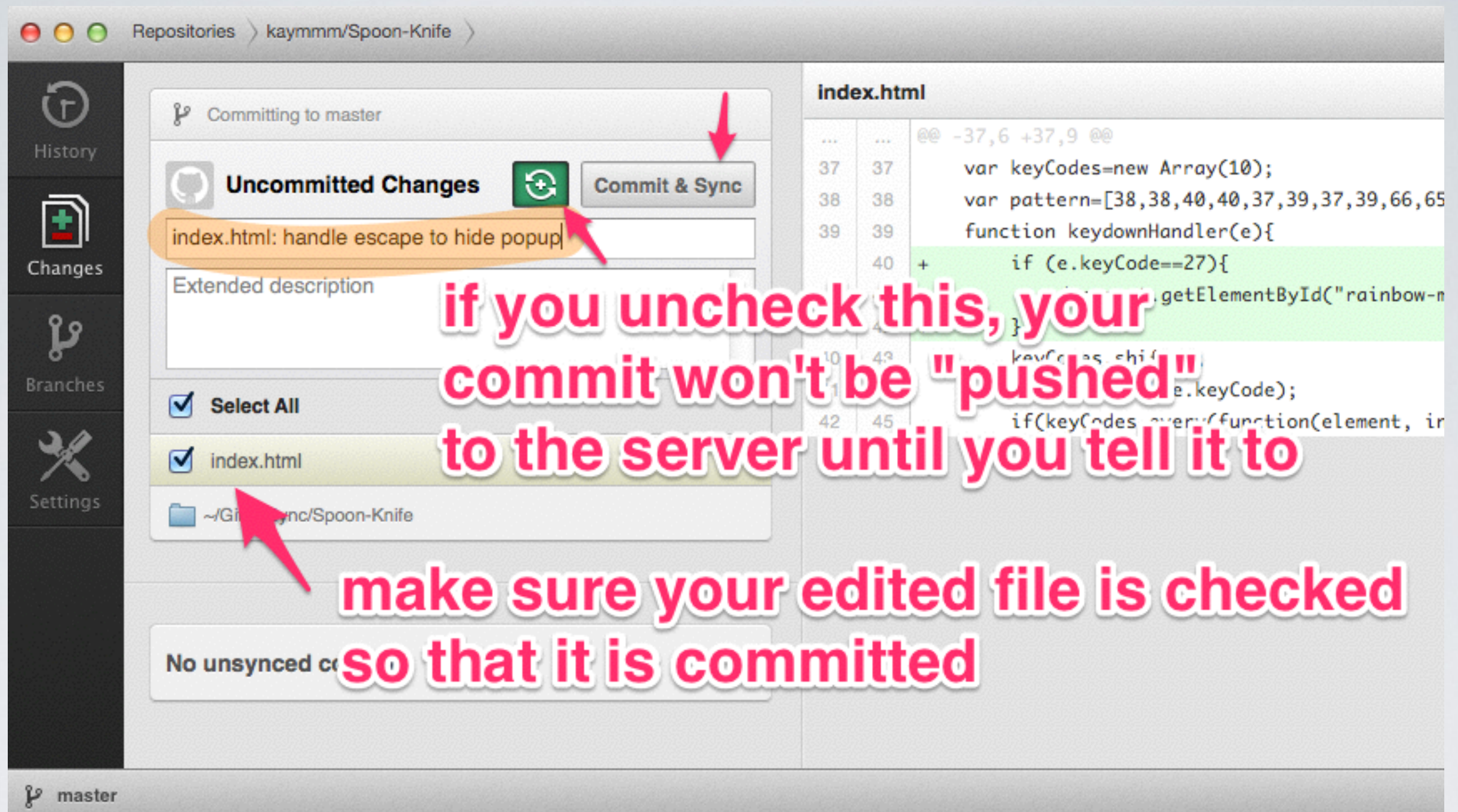
```
if (e.keyCode==27){  
document.getElementById("rainbow-message").style.display="none";  
}
```

```
36 <script type="text/javascript">  
37   var keyCodes=new Array(10);  
38   var pattern=[38,38,40,40,37,39,37,39,66,65];  
39   function keydownHandler(e){  
40     if (e.keyCode==27){  
41       document.getElementById("rainbow-message").style.display="none";  
42     }  
43     keyCodes.shift();  
44     keyCodes.push(e.keyCode);  
45     if(keyCodes.every(function(element, index, array){return element==pa  
46       document.getElementById("rainbow-message").style.display="";  
47     }  
48   }  
49   window.onkeydown=keydownHandler;  
50 </script>
```



# MAKE SOME EDITS

- Refresh the browser displaying index.html
- Type the Konami code again
  - up, up, down, down, left, right, left, right, B, A
- Now try to get rid of the popup again...!



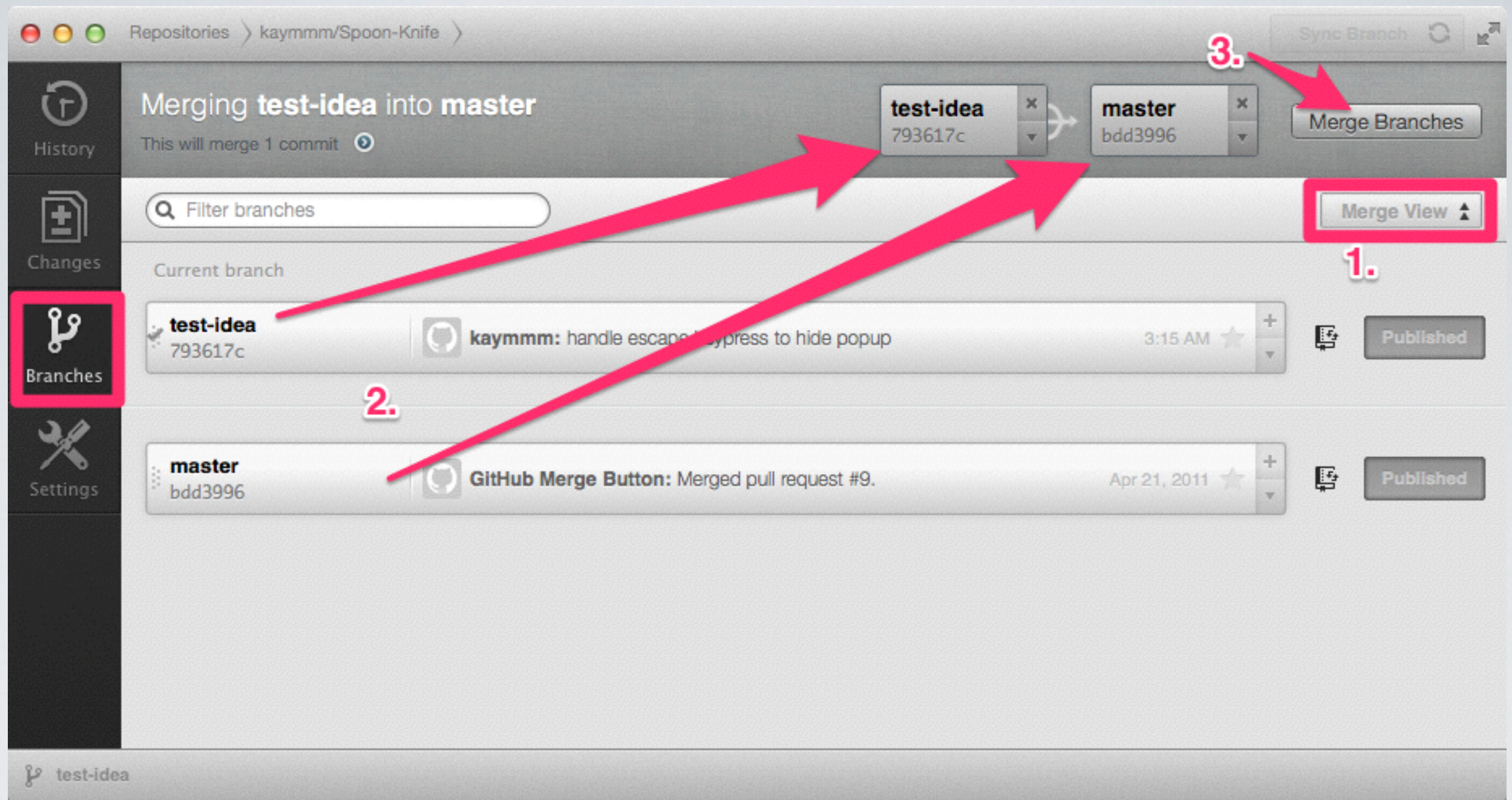
# COMMIT YOUR CHANGES

(and push them to the GitHub server)

# WHEN SHOULD I COMMIT?

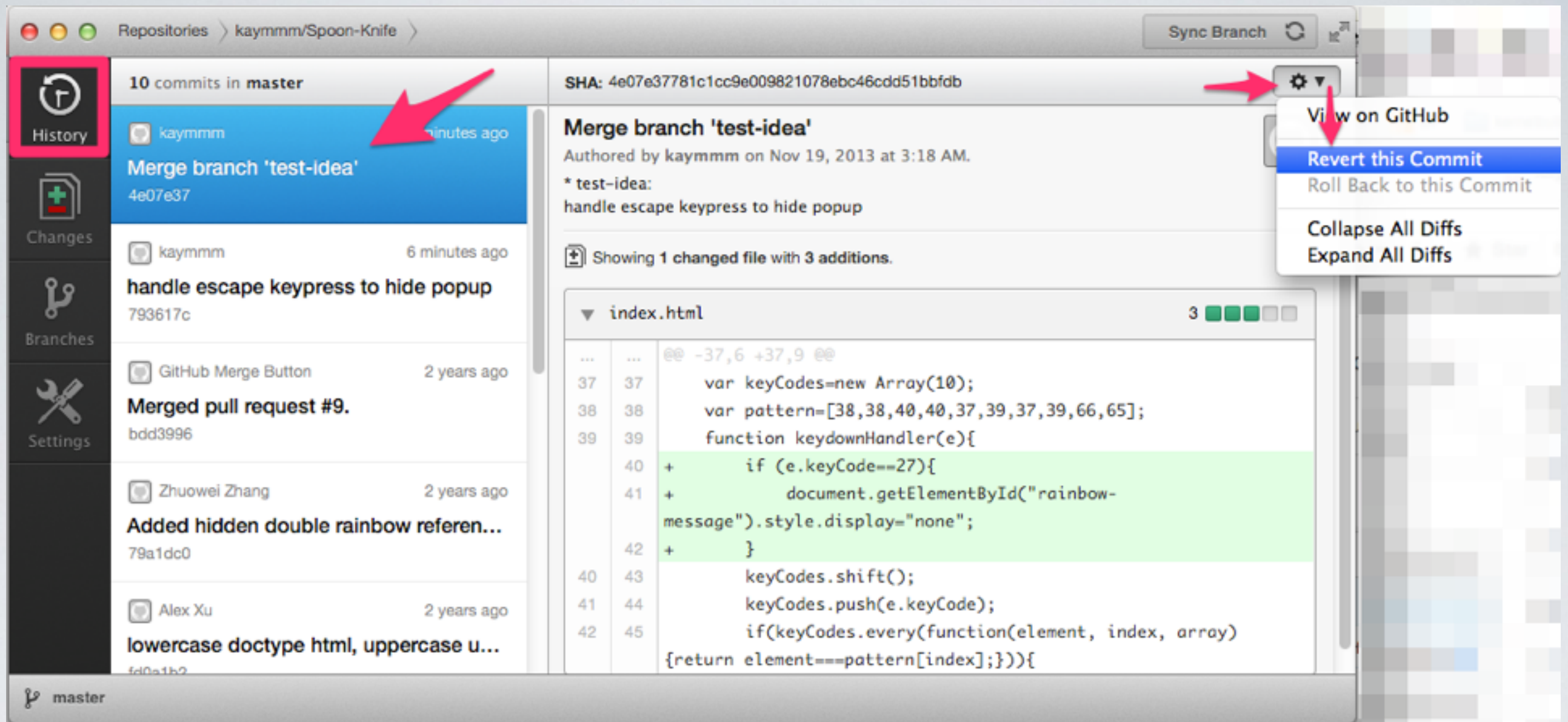
- Frequently.
- If you can describe the change you made, then you should commit it.
- Group similar changes into the same commit
- If you undo one commit, you won't have to redo changes unrelated to whatever you don't want.





# MERGE YOUR TEST BRANCH

(Don't forget to sync afterwards)



# REVERT A COMMIT

Just for fun.

It doesn't have to be the latest one...

# WHAT'S NEXT?

- Add a remote repository (<https://github.com/kaymmm/Hello-World>)
- Pull/merge upstream
- Submit a pull request
- Create an issue ticket (enable in settings)



# COOL GITHUB PROJECTS

- <http://digital.cityofchicago.org/index.php/chicago-on-github/>
- <https://github.com/blog/1601-see-your-csvs>
- <https://github.com/blog/1528-there-s-a-map-for-that>
- <https://github.com/lorennorman/octocat-3d/tree/master/stl>
- <https://github.com/openhatch>
- <https://github.com/cityofnewyork>