

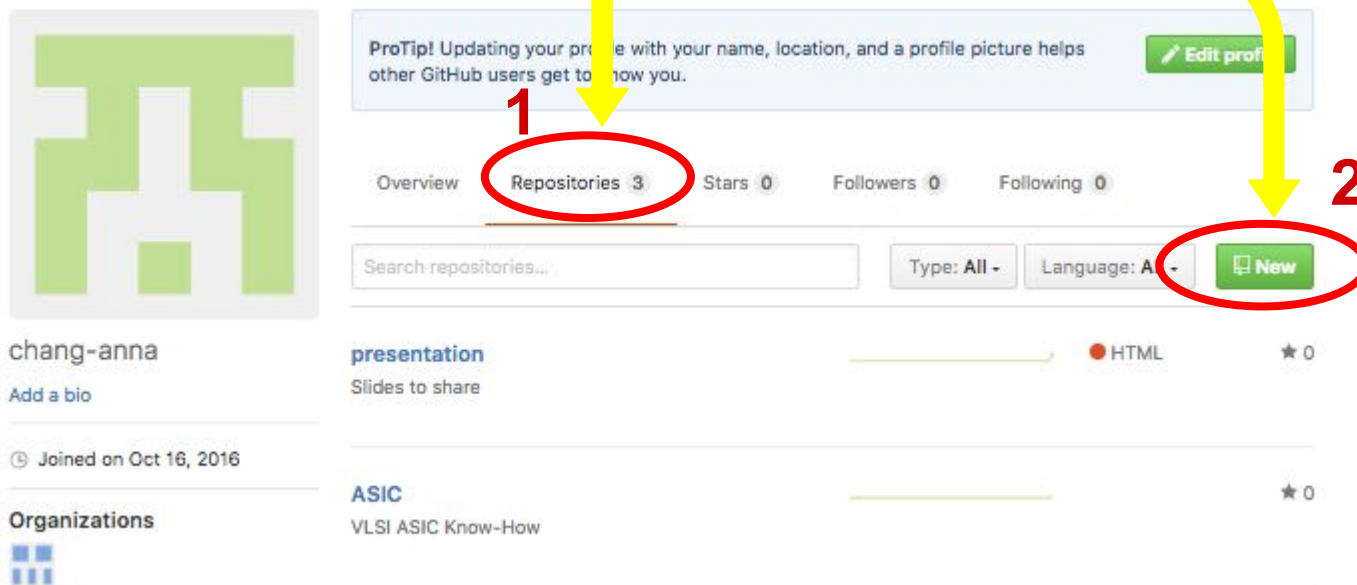
GitHub 101

Tutorial to build your repository

Chingwen Chang / Oct. 16 2016

Step 1-a. Create a Repository

1. Go to your repository tab.
2. Click “New” on the upper right corner to create a new repository.



Step 1-b. Create a Repository With a Readme File

Create a new repository

A repository contains all the files for your project, including the revision history.

Owner

chang-anna

Repository name

RepositoryName

1. Give it a name.

Great repository names are short and memorable. Need inspiration? How about **special-octo-chainsaw**.

Description (optional)

New 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 let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: None

Add a license: None

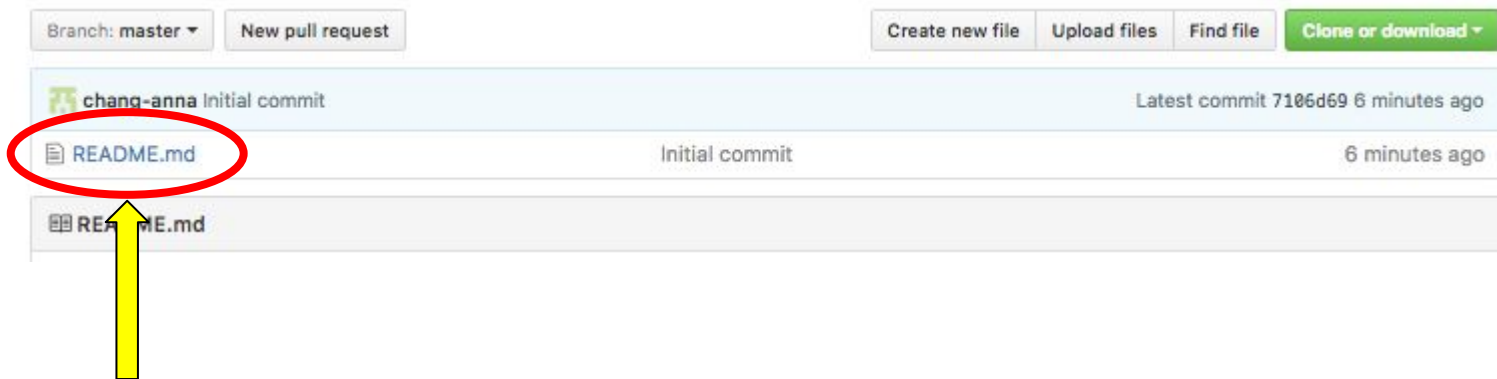
Create repository

2. Select public or private

3. Initialize with a README is good practice.

4. Click Create repository.

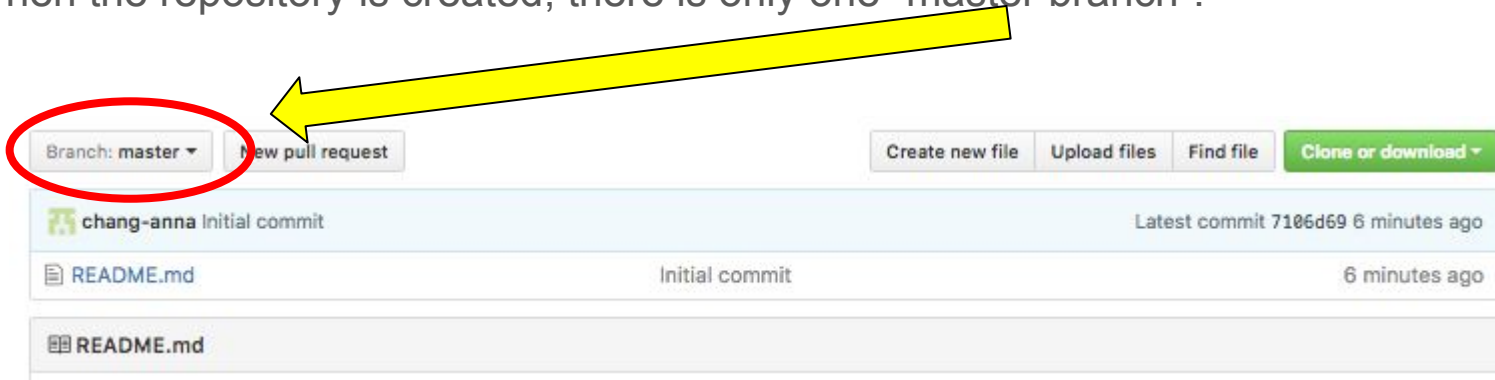
Step 1-c. What Just Happened



Click the file to start logging your updates.

Step 2-a. Create a Branch to Work on

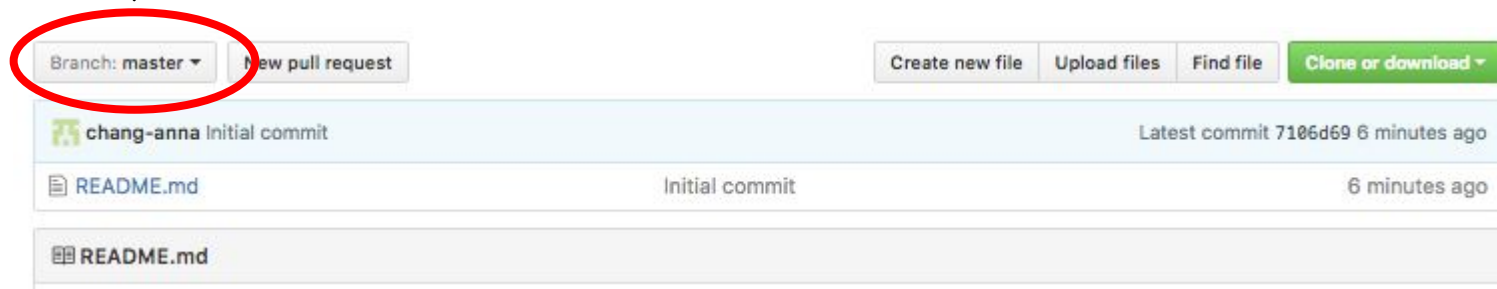
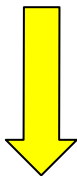
- Why?
 - Because when you work as a team, you don't want your teammates to stall and wait while you make your changes.
- When the repository is created, there is only one “master branch”.



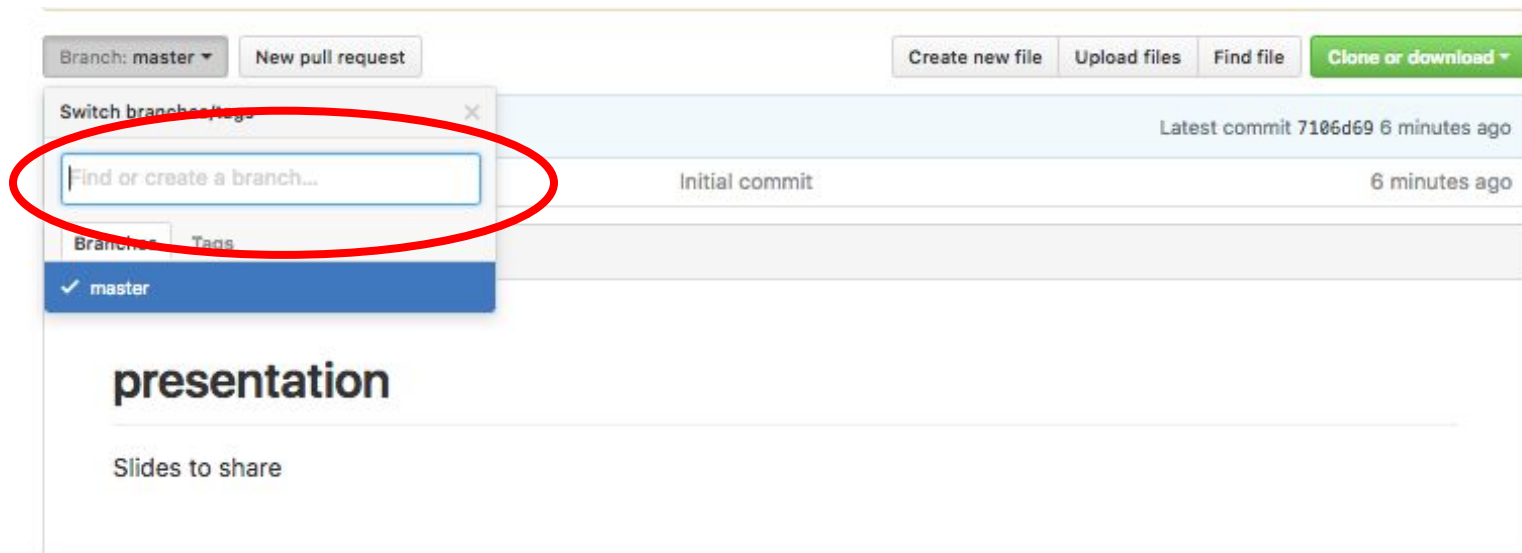
- The “master branch” is the primary set of working components for everyone to check out and work on their part(s) so one has to wait for any other ones.

Step 2-b. Click to Create a Branch

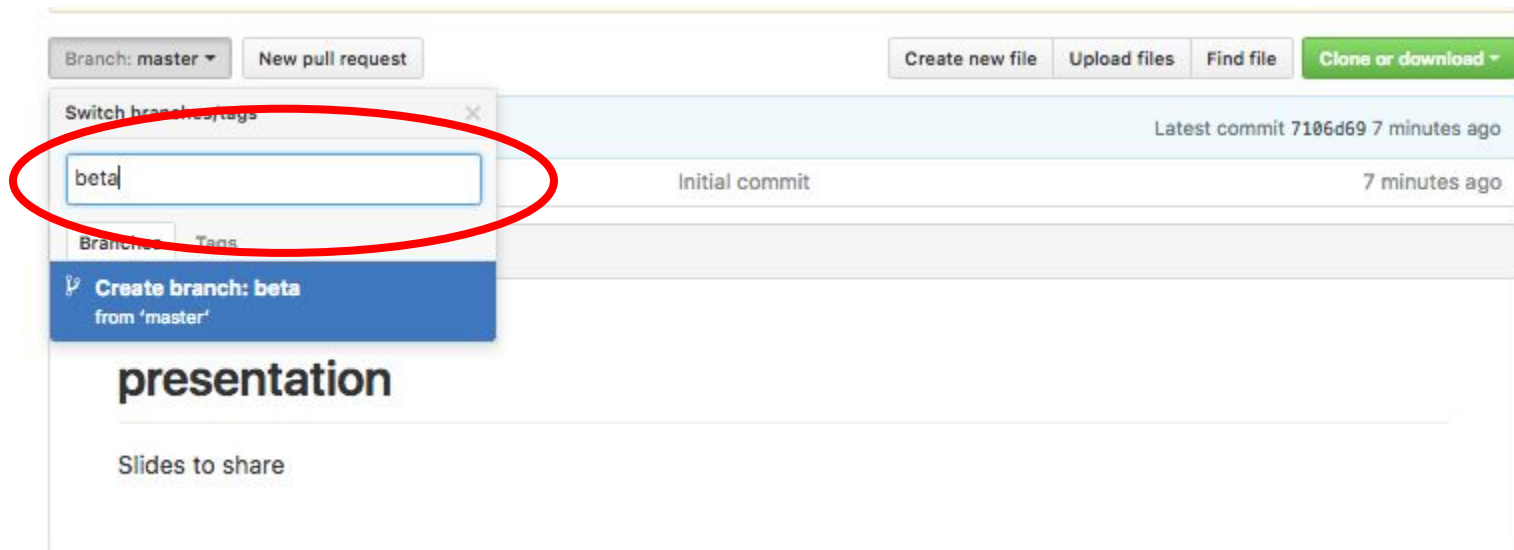
Click



Step 2-c. Give the New Branch a Name



Step 2-d. New Branch is Named “Beta”



Step 2-e. You Are in Beta Branch Now

Your recently pushed branches:

beta (1 minute ago)

Compare & pull request

Branch: beta

New pull request

Create new file

Upload files

Find file

Clone or download

This branch is even with master.

Pull request

Compare

Initial commit

Latest commit 7106d69 8 minutes ago

README.md

Initial commit

8 minutes ago

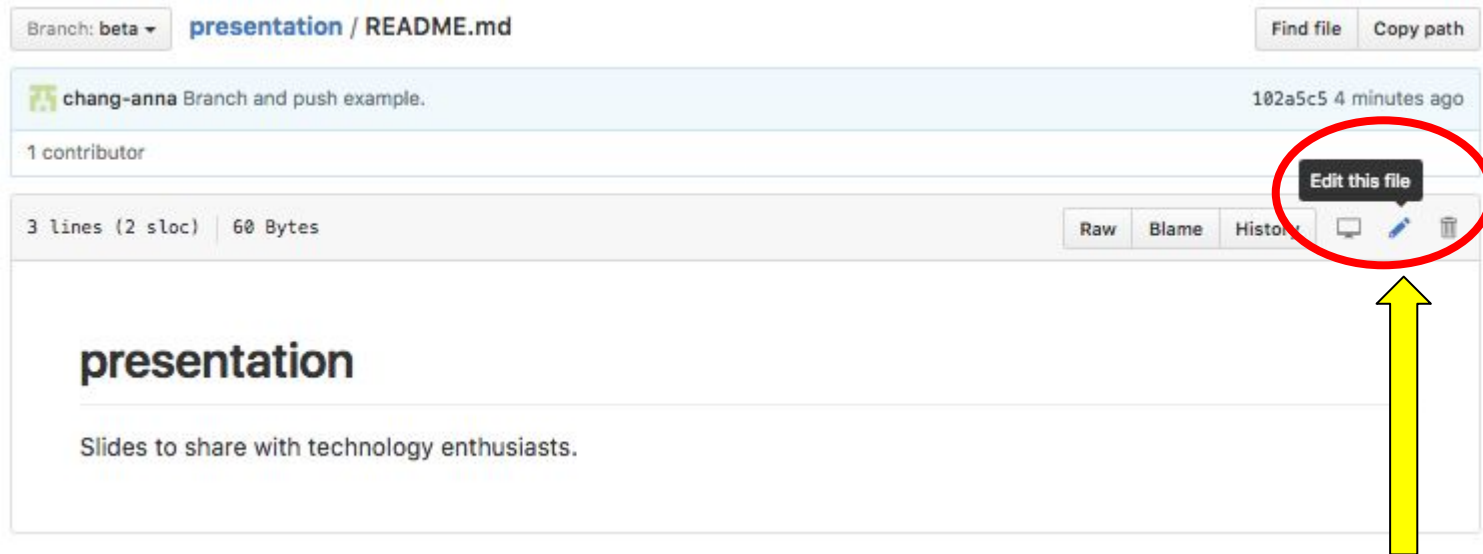
README.md

presentation

Slides to share

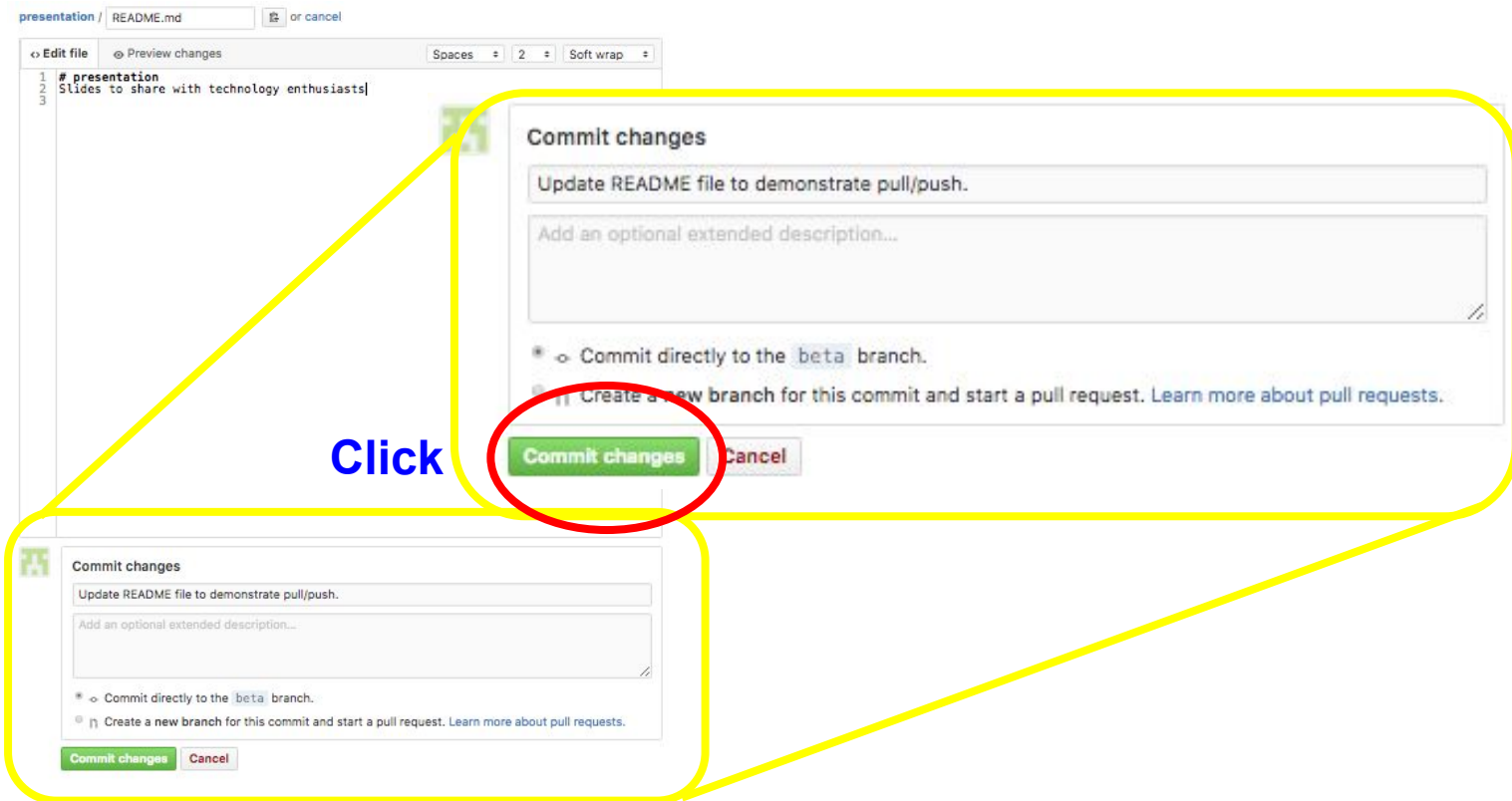
One File - README.md in this new branch
Click to read the file.

Step 2-f. Edit the File

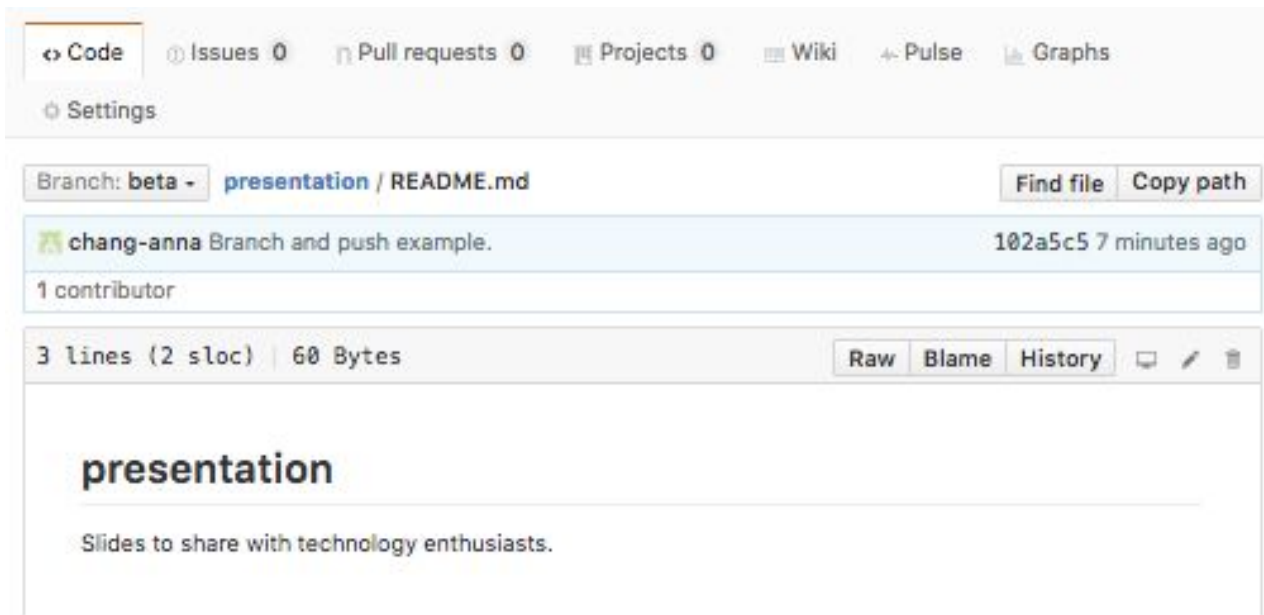


Hover over the pencil icon, click to edit the file.

Step 2-f. Confirm the Change When Done



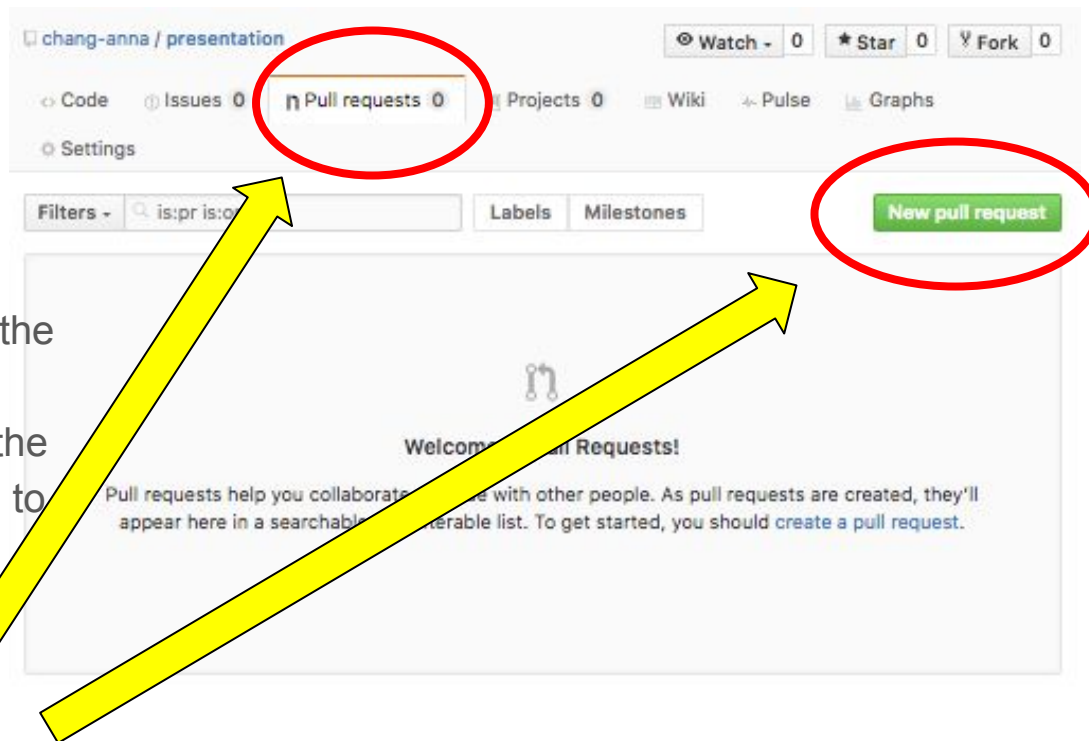
Step 2-g. What Just Happened



You will see your change is saved.

Step 3-a. Pull and Push

- Why?
 - Because it's time for your teammates to see your brilliant work.
- You have to “pull” the work from the master branch and “push” your change from the Beta branch to the primary master branch for others to “pull” and use.
- Go to the “Pull Requests” Tab.
- Click “New Pull Request” Button.



Step 3-b. New Pull Request to Compare

Compare changes

Compare changes across branches, commits, tags, and more below. If you need to, you can also compare across forks.

base: master ... compare: master

[Create pull request](#) Choose different branches or forks above to discuss and review changes.

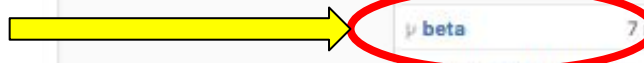
Compare and review just about anything

Branches, tags, commit ranges, and time ranges. In the same repository and across forks.

EXAMPLE COMPARISONS

beta	7 minutes ago
master@{today}...m...	24 hours ago

Select the branch to compare.



Step 3-c. Compare and Pull Others to Discuss

1. Check your changes.
Make sure it's what you
Intended.

2. To submit, Click "Create
Pull Request".

Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also compare across forks.

base: master - ... compare: beta - ✓ Able to merge. These branches can be automatically merged.

Create pull request Discuss and review the changes in this comparison with others.

1 commit 1 file changed 0 commit comments 1 contributor

Commits on Oct 16, 2016

chang-anna Branch and push example. 102a5c5

Showing 1 changed file with 1 addition and 1 deletion.

Unified Split

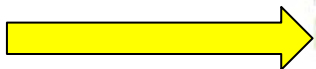
README.md View

```
@@ -1,2 +1,2 @@
1 1 # presentation
2 2 -Slides to share
  2 +Slides to share with technology enthusiasts.
```

No commit comments for this range

Step 3-d. Give Your Pull a Title

Give a Title to document your changes.



Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also compare across forks.

base: master ... compare: beta - Able to merge. These branches can be automatically merged.

Branch and push example.

Write Preview

Leave a comment

Attach files by dragging & dropping, selecting them, or pasting from the clipboard.

Styling with Markdown is supported

Create pull request

Labels: None yet

Milestone: No milestone

Assignees: No one—assign yourself

1 commit 1 file changed 0 commit comments 1 contributor

Commits on Oct 16, 2016

chang-anna Branch and push example. 102a5c5

Showing 1 changed file with 1 addition and 1 deletion.

Unified Split

2 README.md

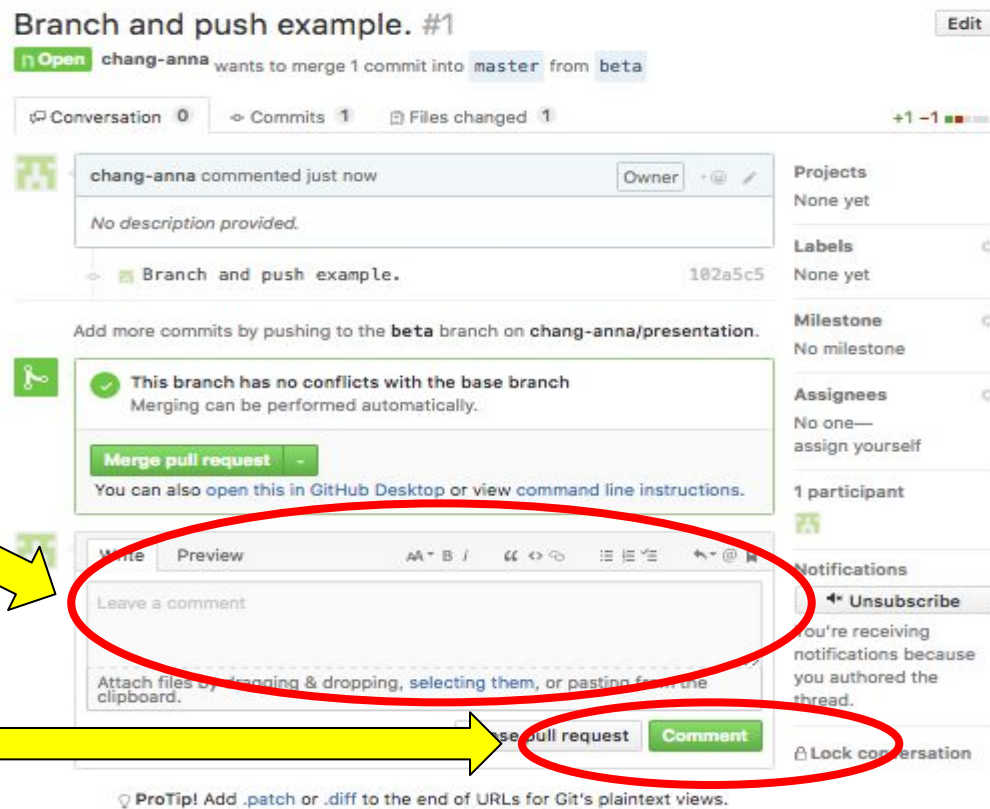
1	1	# presentation
2	1	-Slides to share
2	2	+Slides to share with technology enthusiasts.

No commit comments for this range

Step 3-e. Documentation is Important

Attach documents or further elaborate the reasons for this design change in order to keep records for future use.

Teammates can comment before pulling the trigger.



Step 3-f. All Set to Merge

Branch and push example. #1

Open chang-anna wants to merge 1 commit into master from beta

Conversation 0 Commits 1 Files changed 1 +1 -1

chang-anna commented 2 minutes ago

No description provided.

Branch and push example. 102a5c5

Add more commits by pushing to the beta branch on chang-anna/presentation.

This branch has no conflicts with the base branch

Merging can be performed automatically.

Merge pull request

You can also open this in GitHub Desktop or view command line instructions.

Write Preview

Merge first demonstration of pull/push by branching.

Revision History:

oct 16, 2016: readme.txt change for demonstration purpose.

Attach files by dragging & dropping, selecting them, or pasting from the clipboard.

Styling with Markdown is supported

Close and comment Comment

Projects: None yet

Labels: None yet

Milestone: No milestone

Assignees: No one—assign yourself

1 participant

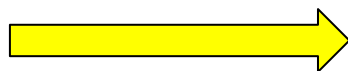
Notifications: Unsubscribe

You're receiving notifications because you authored the thread.

Lock conversation

💡 **ProTip!** Add `.patch` or `.diff` to the end of URLs for Git's plaintext views.

Step 3-g. Confirm



Branch and push example. #1

Open chang-anna wants to merge 1 commit into master from beta

Conversation 0 Commits 1 Files changed 1 +1 -1

chang-anna commented 2 minutes ago
No description provided.

Branch and push example. 102a5c5

Add more commits by pushing to the beta branch on chang-anna/presentation.

Merge pull request #1 from chang-anna/beta

Branch and push example.

Confirm merge Cancel

Write Preview

Merge first demonstration of pull/push by branching.

Revision History:

oct 16, 2016: ~~readme.txt~~ change for demonstration purpose.

Attach files by dragging & dropping, selecting them, or pasting from the clipboard.

Styling with Markdown is supported

Close and comment **Comment**

ProTip! Add .patch or .diff to the end of URLs for Git's plaintext views.

Projects
None yet

Labels
None yet

Milestone
No milestone

Assignees
No one—
assign yourself

1 participant

Notifications
Unsubscribe

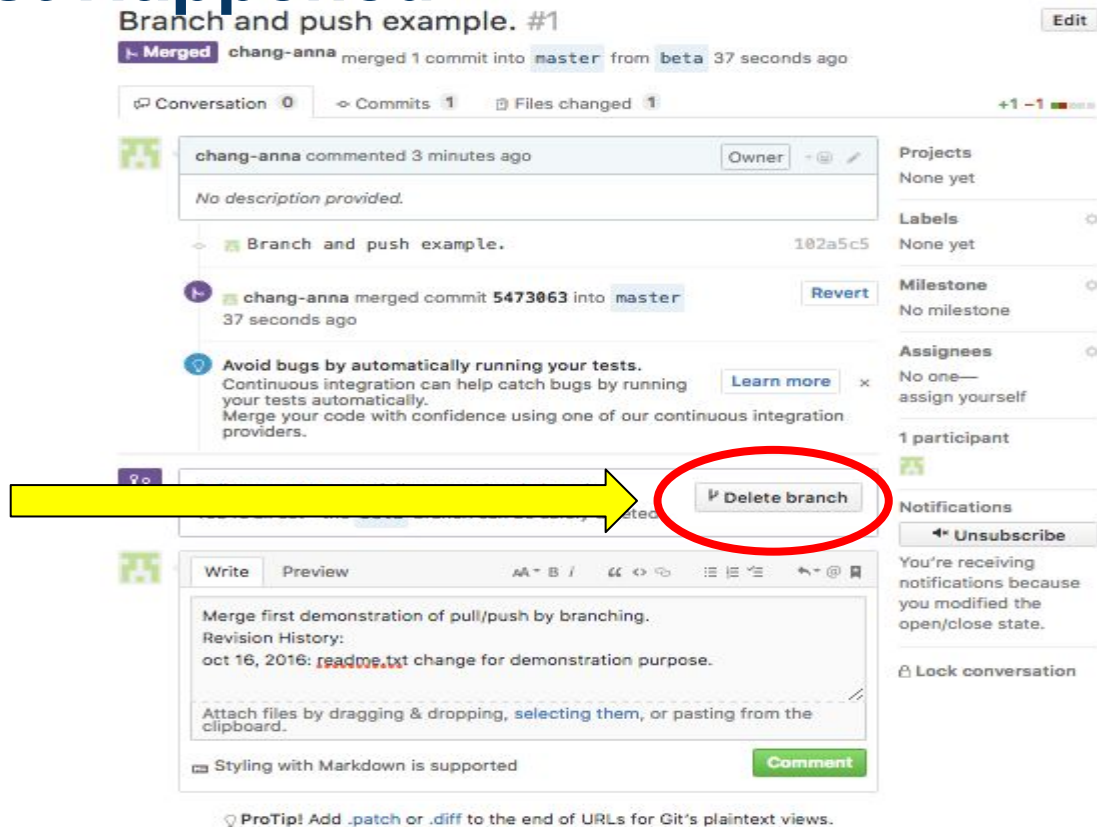
You're receiving notifications because you authored the thread.

Lock conversation

Step 3-g. What Just Happened

Now your teammates can enjoy your improvement or repair.

If you don't need the branch anymore, you can delete it.



Background - Anna Chang

- **Design and Verification:**
 - SystemVerilog / UVM / OVM / OOP : 7 years
 - Microprocessor (Sun, AMD), DFT (Apple, Nvidia, TSMC, AMD),
 - JTAG (Apple, Nvidia, TSMC, AMD), MBIST (TSMC, Nvidia, Apple, AMD),
 - PCI-express (Sun), mixed Signal Audio codec (Nuvoton),
 - I2C, SPI, Ethernet, I2S, PCI/PCI-e, SLIMbus, AMBA, AXI, AHB, P1500 (in different projects)
 - Verilog / ASIC : 15 years
 - Microprocessor (Sun), and including UVM/OVM experience above.
 - Synthesis, timing analysis, micro-architecture (Sun, TSMC, Nuvoton)
 - FPGA Xilinx-Cortex M0 (Nuvoton and consulting projects, 18 months)
 - Formal Verification (Apple, 2 years)
 - Tools : VCS, NCverilog, Modelsim, Jasper, Design/DFT-Compiler, TMAX, Perforce, SVN, Git, Eclipse
- **DFT : 12 years** in JTAG, P1500, Scan-chain, MBIST, ATPG
- **Design/Project Management :** TSMC 4 years.
- **Programming Languages :** Perl, Python, Make, Tcl/tk, Java, C/C++, J2EE(Spring, Hibernate, JDBC), HTML, CSS, JavaScript (Selenium, AJAX, JQuery, Node.js), XML/JSON, Linux/Unix (bash/csh/tcsh), Apache, SQL/MySQL, PHP
- <https://github.com/chang-anna/presentation/tree/master/public>

Thank you!