#### git/github - Resources

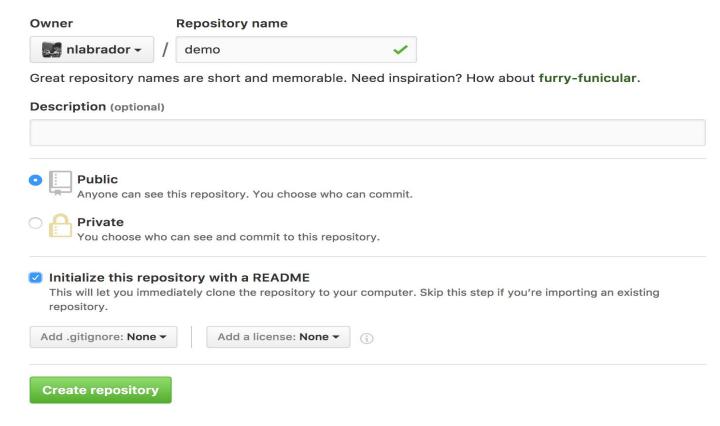
- github.com
- git-scm.com
- git-scm.com/book/en/v2/Getting-Started-About-Version-Control
- guides.github.com/activities/hellow-world



# git/github - simple versioning

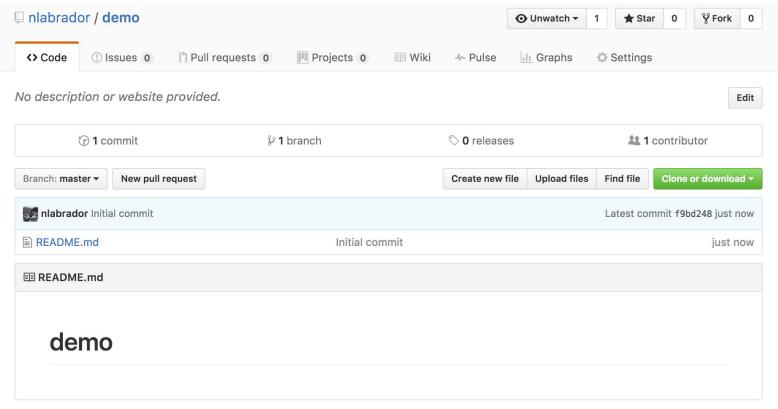


### git/github - Creating Repo in github





# git/github - Creating Repo in github





#### git commands - basic

- git clone
- git status
- git add
- git commit
- git push
- git pull
- git log
- git merge
- git checkout



Your branch is up-to-date with 'origin/master'.

nothing to commit, working tree clean Ninos-MacBook-Pro:demo2 nlabrador\$

ding ...enue



Ninos-MacBook-Pro:demo1 nlabrador\$ pwd
/Users/nlabrador/demo1

Ninos-MacBook-Pro:demo1 nlabrador\$ vim README.md

Ninos-MacBook-Pro:demo1 nlabrador\$ git status

On branch master

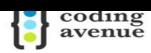
Your branch is up-to-date with 'origin/master'.

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)
(use "git checkout -- <file>..." to discard changes in working directory)

modified: README.md

no changes added to commit (use "git add" and/or "git commit -a")
Ninos-MacBook-Pro:demo1 nlabrador\$ ■



#### git commands - add

```
Ninos-MacBook-Pro:demo1 nlabrador$ git add README.md
Ninos-MacBook-Pro:demo1 nlabrador$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)
```

modified: README.md

Ninos-MacBook-Pro:demo1 nlabrador\$



#### git commands - commit

```
demo1 — vi ∢ git commit — 104×28
1 This is where we put our commit message
2 # Please enter the commit message for your changes. Lines starting
3 # with '#' will be ignored, and an empty message aborts the commit.
4 # On branch master
5 # Your branch is up-to-date with 'origin/master'.
6 #
    Changes to be committed:
          modified: README.md
8 #
9 #
```



Ninos-MacBook-Pro:demo1 nlabrador\$ git commit [master 0b3e597] This is where we put our commit message

1 file changed, 2 insertions(+), 1 deletion(-)
Ninos-MacBook-Pro:demo1 nlabrador\$ git status

Your branch is ahead of 'origin/master' by 1 commit.

On branch master

(use "git push" to publish your local commits)
nothing to commit, working tree clean
Ninos-MacBook-Pro:demo1 nlabrador\$



### git commands - log

demo1 — -bash — 104×28

Ninos-MacBook-Pro:demo1 nlabrador\$ git log commit 0b3e597ba6e72a2b1eb28d1f71d942a0ef648713

Author: Nino Labrador <nino.labrador@codingaveue.com>

Date: Fri Jan 13 07:58:55 2017 +0800

This is where we put our commit message

#### commit f9bd24804f47f327972fede2eb0f3ff45fb4ea25

Author: Nino Anthony Labrador <nino.labrador@codingavenue.com>

Date: Thu Jan 12 23:15:14 2017 +0800

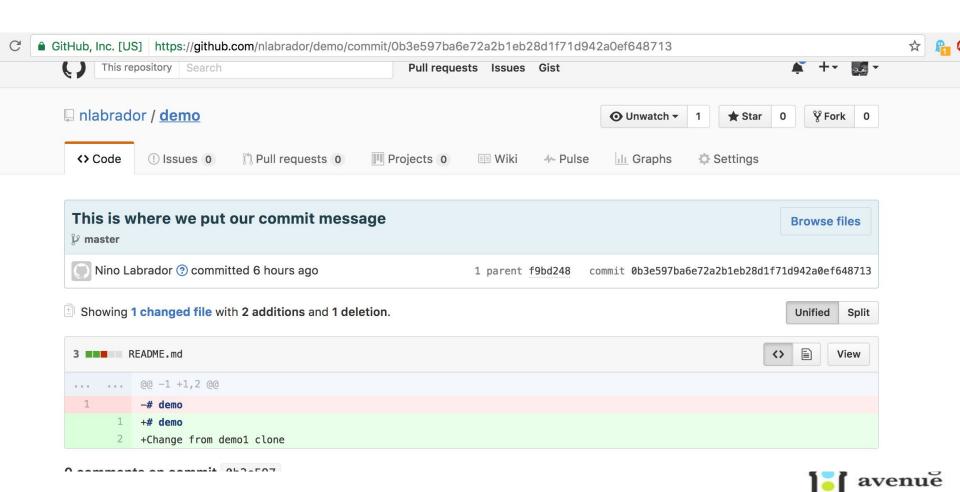
Initial commit
Ninos-MacBook-Pro:demo1 nlabrador\$

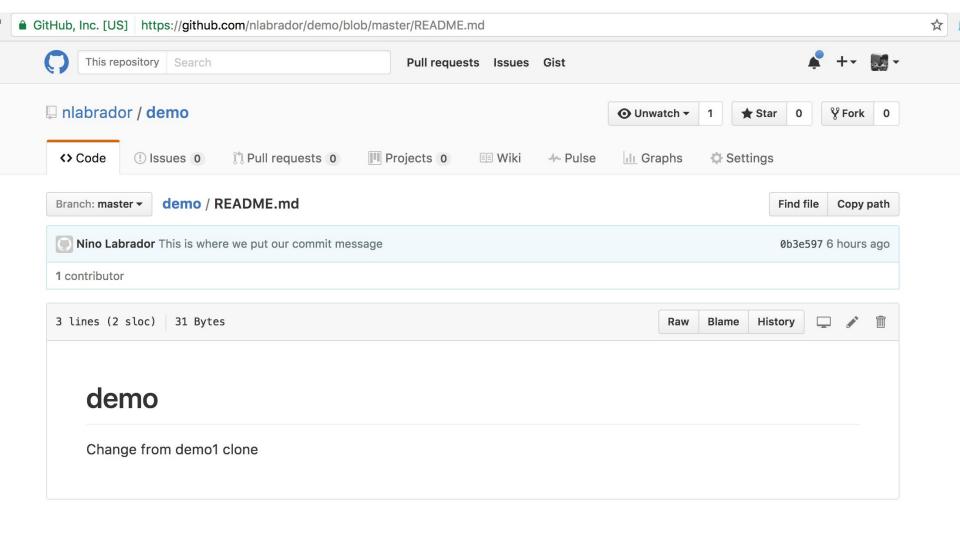
#### git commands - push

```
Ninos-MacBook-Pro:demo1 nlabrador$ git push origin master Counting objects: 3, done. Writing objects: 100% (3/3), 296 bytes | 0 bytes/s, done. Total 3 (delta 0), reused 0 (delta 0) To github.com:nlabrador/demo.git f9bd248..0b3e597 master -> master Ninos-MacBook-Pro:demo1 nlabrador$
```



demo1 — -bash — 104

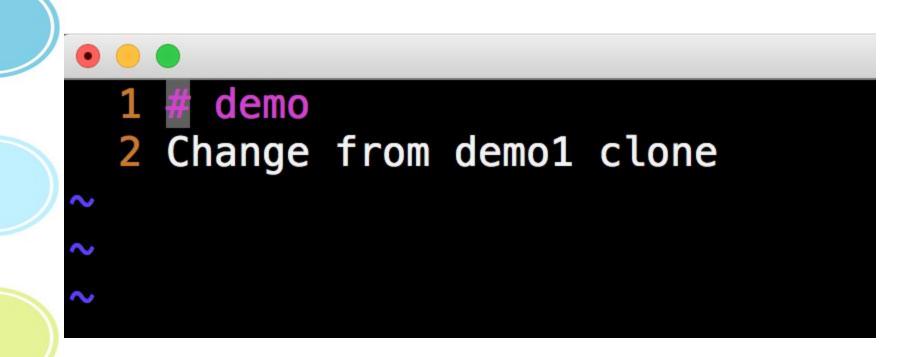




#### git commands - pull

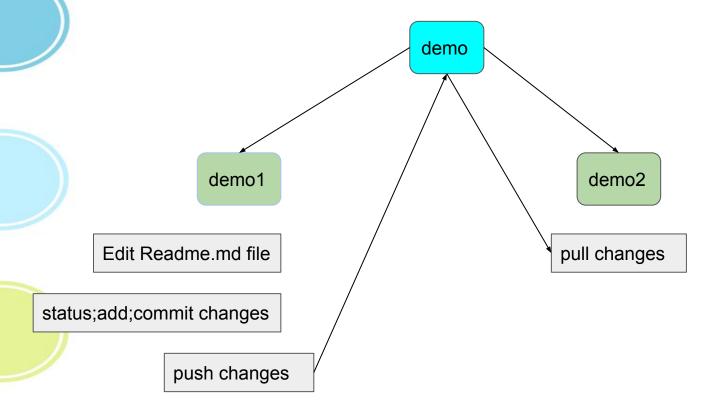
Ninos-MacBook-Pro:demo2 nlabrador\$

```
demo2 — -bash — 104×28
Ninos-MacBook-Pro:demo2 nlabrador$ git pull
remote: Counting objects: 3, done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From github.com:nlabrador/demo
   f9bd248..0b3e597 master -> origin/master
Updating f9bd248..0b3e597
Fast-forward
README.md | 3 ++-
1 file changed, 2 insertions(+), 1 deletion(-)
```





### git/github - seeing the process





# git/github - branching and merging



#### git commands - checkout branching

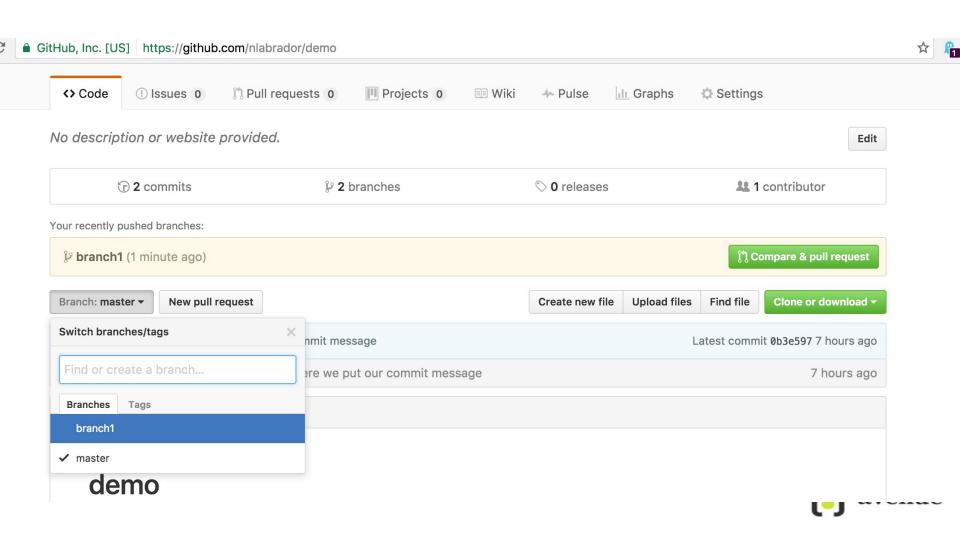
```
Ninos-MacBook-Pro:demo1 nlabrador$ git checkout -b branch1
Switched to a new branch 'branch1'
Ninos-MacBook-Pro:demo1 nlabrador$ git status
On branch branch1
nothing to commit, working tree clean
Ninos-MacBook-Pro:demo1 nlabrador$
```

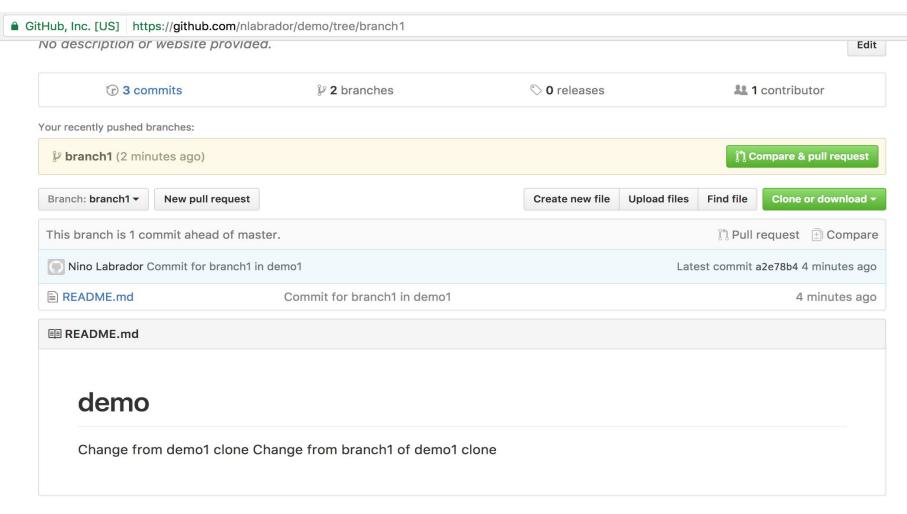


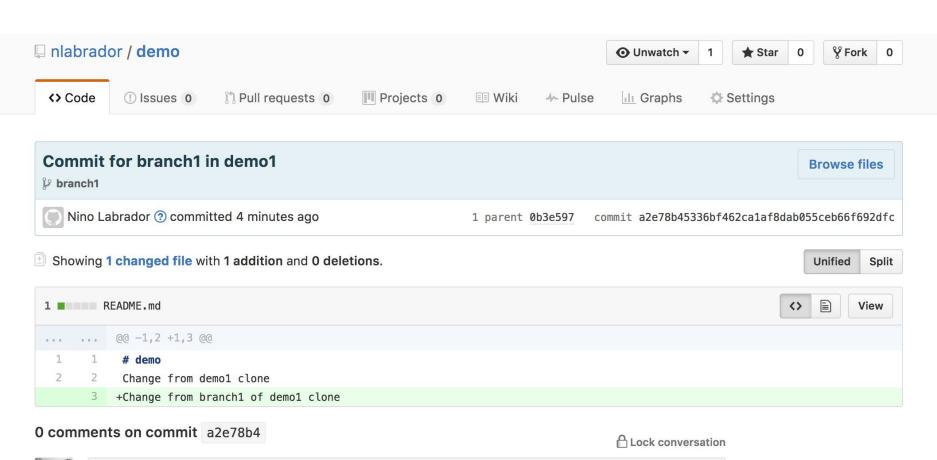
### git commands - push branch

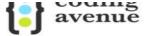
```
demo1 - - bash - 104×2
Ninos-MacBook-Pro:demo1 nlabrador$ git push origin branch1
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 301 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To github.com:nlabrador/demo.git
* [new branch] branch1 -> branch1
Ninos-MacBook-Pro:demo1 nlabrador$
```











#### git commands - checkout branch

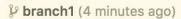
```
demo3 — -bash — 104×28
Ninos-MacBook-Pro:~ nlabrador$ git clone git@github.com:nlabrador/demo.git demo3
Cloning into 'demo3'...
remote: Counting objects: 9, done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 9 (delta 0), reused 6 (delta 0), pack-reused 0
Receiving objects: 100% (9/9), done.
Ninos-MacBook-Pro:∼ nlabrador$ cd demo3
Ninos-MacBook-Pro:demo3 nlabrador$ git checkout branch1
Branch branch1 set up to track remote branch branch1 from origin.
Switched to a new branch 'branch1'
Ninos-MacBook-Pro:demo3 nlabrador$ git status
On branch branch1
Your branch is up-to-date with 'origin/branch1'.
nothing to commit, working tree clean
Ninos-MacBook-Pro:demo3 nlabrador$
```



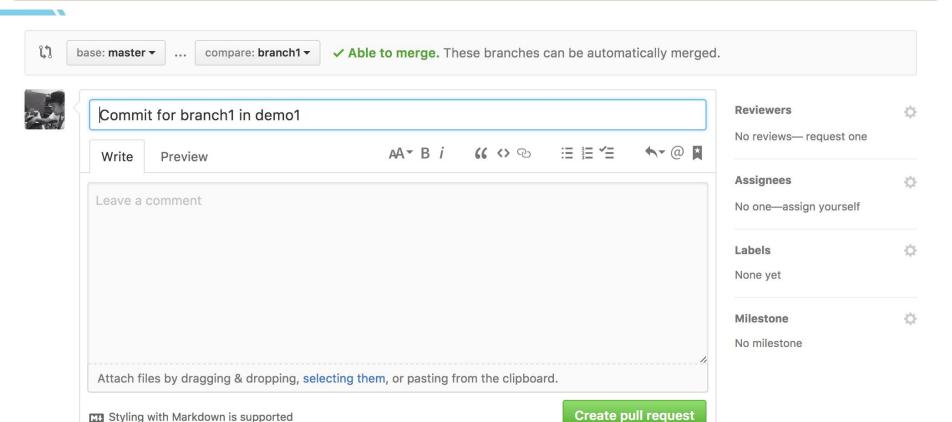
#### git commands - fetch

Ninos-MacBook-Pro:demo2 nlabrador\$

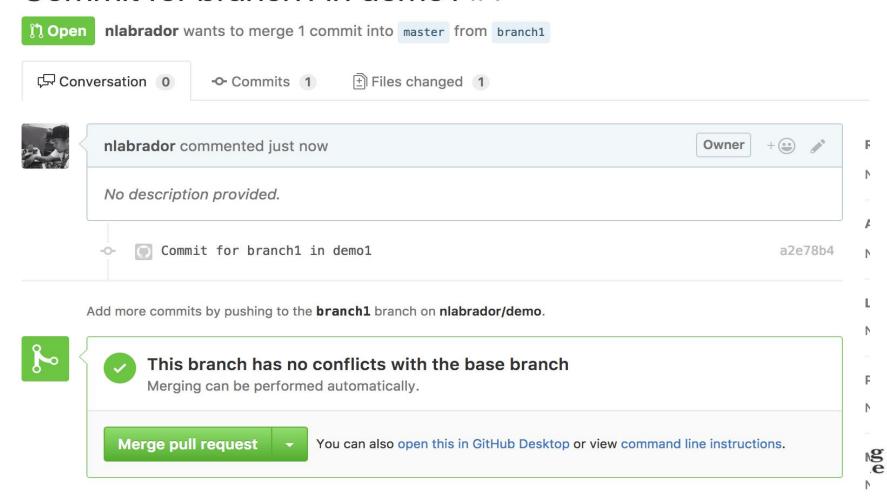
```
demo2 - - bash - 104×28
Ninos-MacBook-Pro:demo2 nlabrador$ git checkout branch1
error: pathspec 'branch1' did not match any file(s) known to git.
Ninos-MacBook-Pro:demo2 nlabrador$ git fetch
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From github.com:nlabrador/demo
* [new branch] branch1 -> origin/branch1
Ninos-MacBook-Pro:demo2 nlabrador$ git checkout branch1
Branch branch1 set up to track remote branch branch1 from origin.
Switched to a new branch 'branch1'
Ninos-MacBook-Pro:demo2 nlabrador$ git status
On branch branch1
Your branch is up-to-date with 'origin/branch1'.
nothing to commit, working tree clean
```

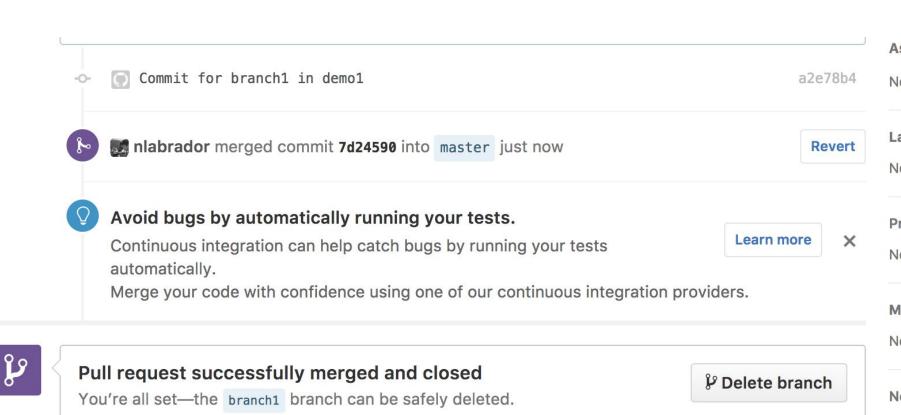




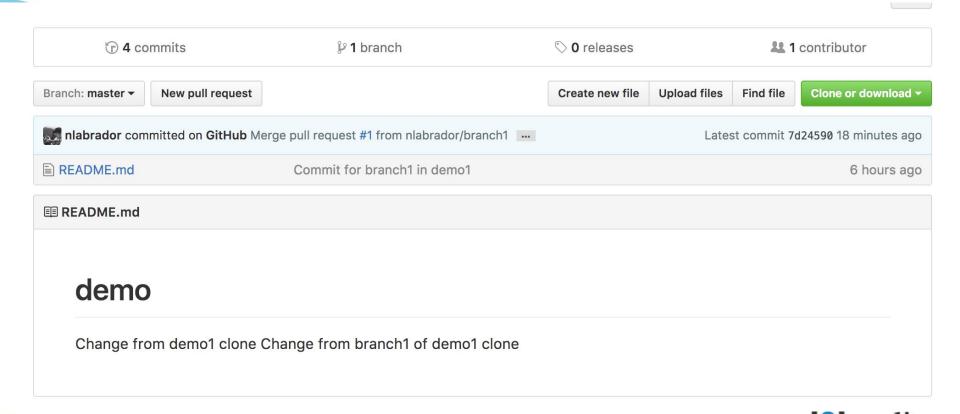


#### Commit for branch1 in demo1 #1









Ninos-MacBook-Pro:demo1 nlabrador\$ git checkout master Switched to branch 'master' Your branch is up-to-date with 'origin/master'. Ninos-MacBook-Pro:demo1 nlabrador\$ git status On branch master Your branch is up-to-date with 'origin/master'. nothing to commit, working tree clean Ninos-MacBook-Pro:demo1 nlabrador\$ Ninos-MacBook-Pro:demo1 nlabrador\$ git pull remote: Counting objects: 1, done. remote: Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 Unpacking objects: 100% (1/1), done. From github.com:nlabrador/demo 0b3e597..7d24590 master -> origin/master Updating 0b3e597..7d24590 Fast-forward README.md | 1 + 1 file changed, 1 insertion(+) Ninos-MacBook-Pro:demo1 nlabrador\$

#### Ninos-MacBook-Pro:demo1 nlabrador\$ git log commit 7d245901be6799f31c3be85a0425a8e19d2a31e6

Merge: 0b3e597 a2e78b4

Author: Nino Anthony Labrador Author: Nino Anthony Labrador

Date: Fri Jan 13 19:49:14 2017 +0800

Merge pull request #1 from nlabrador/branch1

Commit for branch1 in demo1

#### commit a2e78b45336bf462ca1af8dab055ceb66f692dfc

Author: Nino Labrador <nino.labrador@codingaveue.com> Date: Fri Jan 13 14:32:48 2017 +0800

Commit for branch1 in demo1

#### commit 0b3e597ba6e72a2b1eb28d1f71d942a0ef648713

Author: Nino Labrador <nino.labrador@codingaveue.com> Date: Fri Jan 13 07:58:55 2017 +0800

This is where we put our commit message

#### commit f9bd24804f47f327972fede2eb0f3ff45fb4ea25

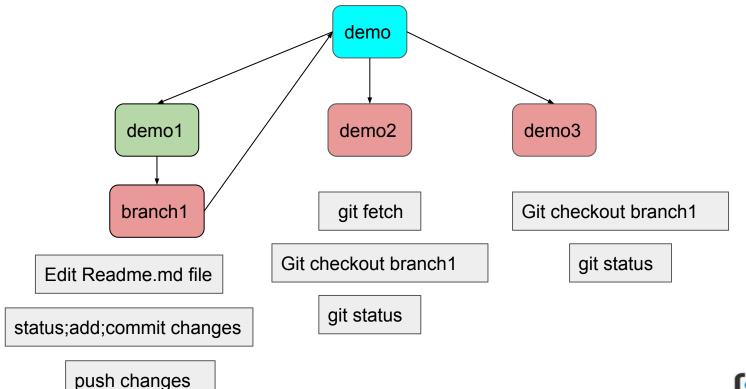
Author: Nino Anthony Labrador <nino.labrador@codingavenue.com> Date: Thu Jan 12 23:15:14 2017 +0800

Initial commit

Ninos-MacBook-Pro:demo1 nlabrador\$



#### git/github - seeing the process





#### Some notes...

- Version control is a system that records changes to a file or set of files over time so that you can recall specific versions later.
- Version Control System (VCS) allows you to revert files back to a previous state, revert the entire project back to a previous state, compare changes over time, see who last modified something that might be causing a problem, who introduced an issue and when, and more.
- Git is a free and open source distributed version control system.
- Github made process easier by providing repository and having a UI to easily see new changes, able to create pull request for easy merging of branches, control user access to repo, and other cool things that makes things done easily.

