

GIT AND GITHUB

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WHY SHOULD I LEARN VERSION CONTROL?

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- Version control lets you control how your code is edited and used – and really helps when you're recovering from a breakage!
- It also enables teams to easily collaborate on the same codebase.
- It enables you to contribute to open-source projects.
- And, it's an attractive skill for employment!

```
$ git fetch upstream
remote: Counting objects: 75, done.
remote: Compressing objects: 100% (53/53), done.
remote: Total 62 (delta 27), reused 44 (delta 9)
Unpacking objects: 100% (62/62), done.
From https://github.com/ORIGINAL_OWNER/ORIGINAL_REPOSITORY
* [new branch]      master       -> upstream/master
```

Check out your fork's local `master` branch.

```
$ git checkout master
Switched to branch 'master'
```

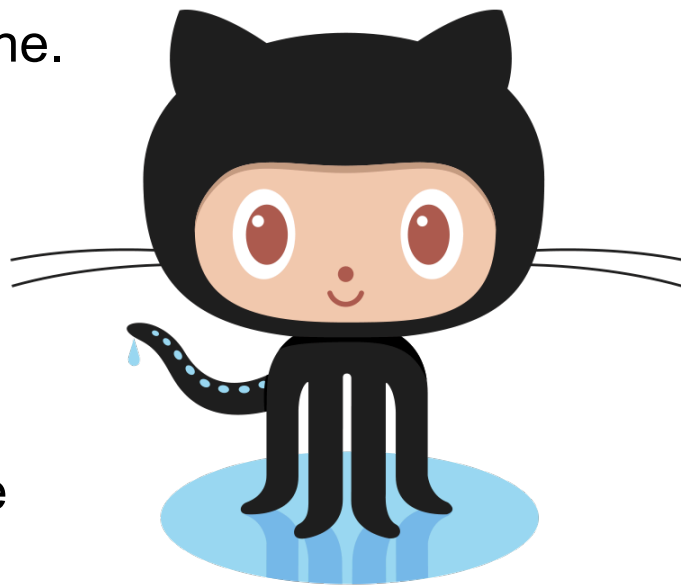
Merge the changes from `upstream/master` into your local `master` branch into sync with the upstream repository, without losing your changes.

```
$ git merge upstream/master
Updating a422352..5fdff0f
Fast-forward
```

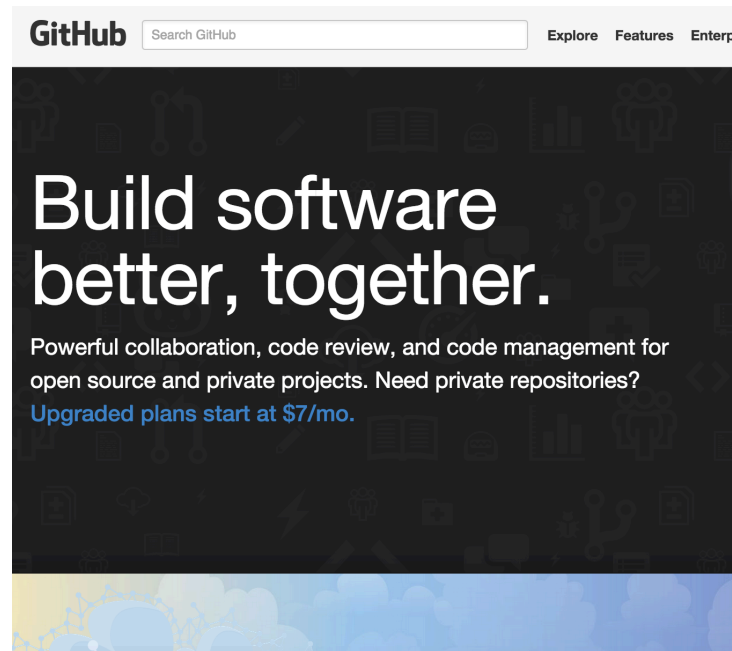
- Git is the most widely used version control system today.
- Git tracks files and file changes in a repository (called a “repo”).
- Repos are usually ‘pulled’ (downloaded), ‘pushed’ (uploaded). Repos can also be ‘cloned’ or ‘forked’.
- Push/pull commands are run from the command line.



- GitHub is a website, not a version control system!
- GitHub allows you to put your Git repos online.
- Benefits of GitHub:
 - Backup of files
 - Visual interface for navigating repos
 - Repo collaboration via 'forking'
- GitHub requires Git, but Git does not require GitHub!



- Create an account at <http://github.com/>.
- Download the GitHub GUI client (available for either Mac or PC) and link it to your GitHub account. Links to both download URLs are on the class homepage.
- Navigate to: https://github.com/bbalin12/DAT5_BOS_students.



FORKING A REPOSITORY

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- On DAT5_BOS_students, click the 'Fork' button in the upper-right hand side of your screen.



- Navigate to your newly-created fork – it should look like {yourname}/DAT5_BOS_students.



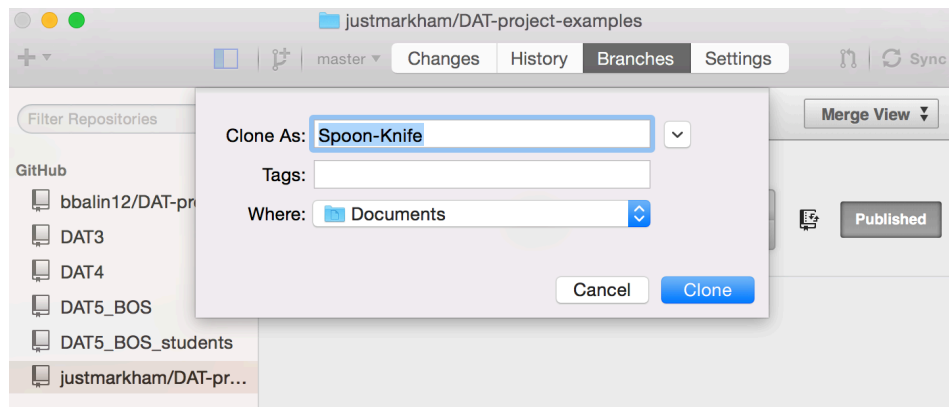
- Click 'Clone in Desktop.'



FORKING A REPOSITORY

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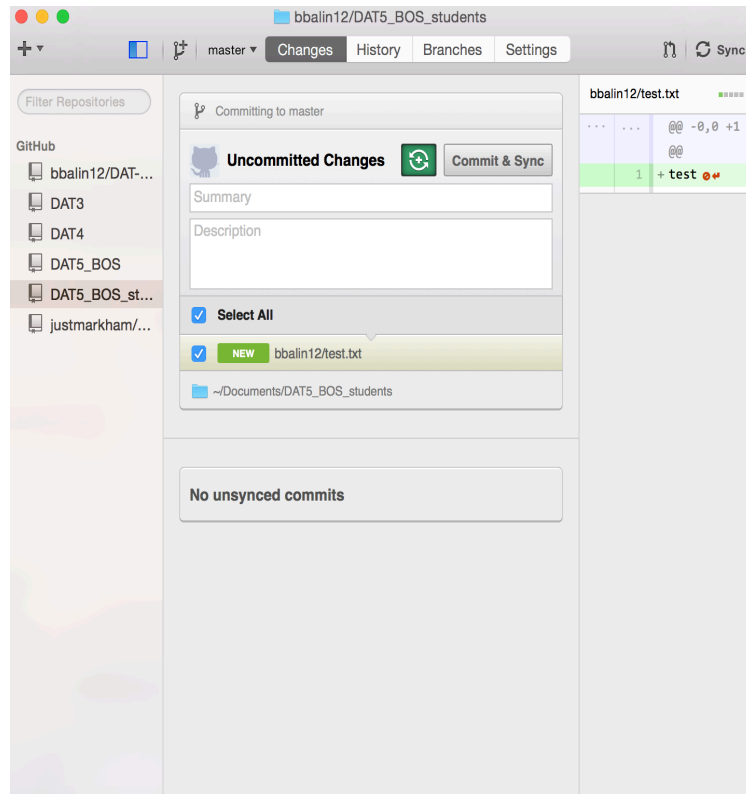
- Your GitHub GUI client should automatically open.
- Designate the folder name you will clone the repo into, as well as where you will be saving the folder.
- You should now see the cloned repo in your 'My Documents' or equivalent folder.



COMMITTING TO YOUR FORK

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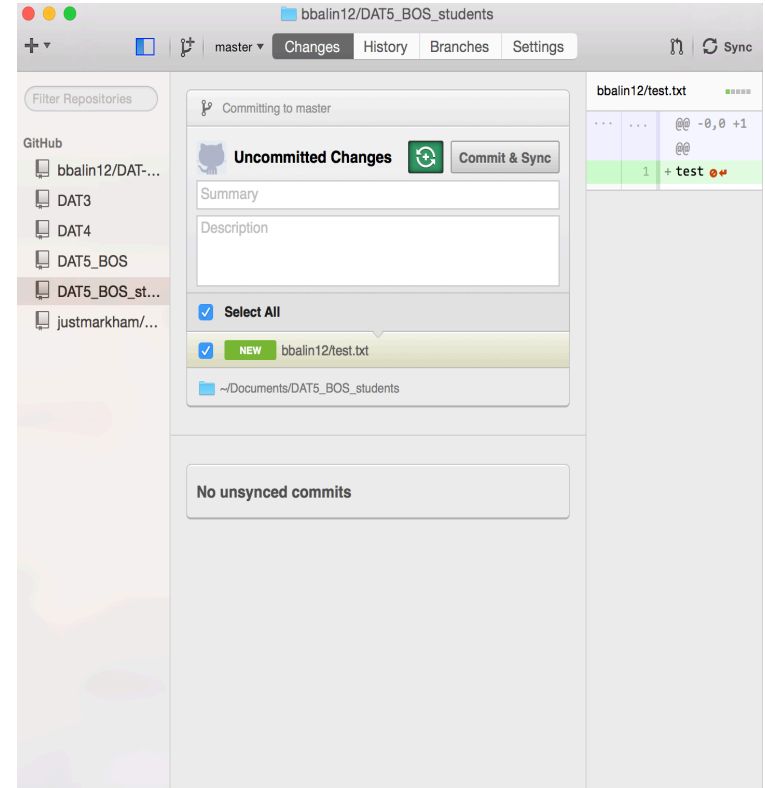
- Create a new folder within your fork of the DAT5_BOS_students repo. It should have the same name as your desired user name (mine is bbalin12).
- Save your Pandas homework to that folder.
- Go back to your GitHub GUI. Under DAT5_BOS_students, you should see your folder and file listed under 'Uncommitted Changes.'
- The contents of your file should appear to the right.



COMMITTING TO YOUR FORK

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- Under 'Summary', write a summary of the changes you made.
- Click the gray button with two circular arrows next to 'Uncommitted Changes' to both commit your work locally and sync your work to your remote GitHub fork. The button should turn green once you do this.
- Click 'Commit and Sync'.



ISSUING A PULL REQUEST

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- You've now committed your changes to your remote fork of the DAT5_BOS_students repo.
- Now, click on the green button with two circular arrows to the right of the 'branch: master' button (see graphic to the right).



This repo is for demonstration purposes only. -

3 commits

3 branches



branch: master ▾

Spoon-Knife / +

ISSUING A PULL REQUEST

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- On the next page, you should see your changes. Click the 'Create Pull Request' button to submit the request to the base master repo.
- On the next page, put a message in for the pull request, and click 'Create Pull Request' again.

Write


Preview

Markdown supported

Edit in fullscreen

test|

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



✓ Able to merge.

These branches can be automatically merged.

Create pull request

test8505 / DAT5_BOS_students
forked from bbalin12/DAT5_BOS_students

base fork: bbalin12/DAT5_BOS_stud...

base: master

head fork: test850

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

1 commit

1 file changed

0 commit co

Commits on Jan 27, 2015

test8505

test2


Showing 1 changed file with 1 addition and 1 deletion.


2 test1234/test.txt


...	...	@ -1 +1 @@
1		-test
	1	+test1


- You should see a confirmation page.
- On my end, I will receive a pull request e-mail with the link to the page below. If I click ‘Merge pull request’, your changes are automatically uploaded and included in the master DAT5_BOS_students repo.


test2 #2

 **test8505** wants to merge 1 commit into `bballin12:master` from `test8505:master`

 Conversation 0


 Commits 1

 Files changed 1




test8505 commented 2 minutes ago


test

 test2

7411d36



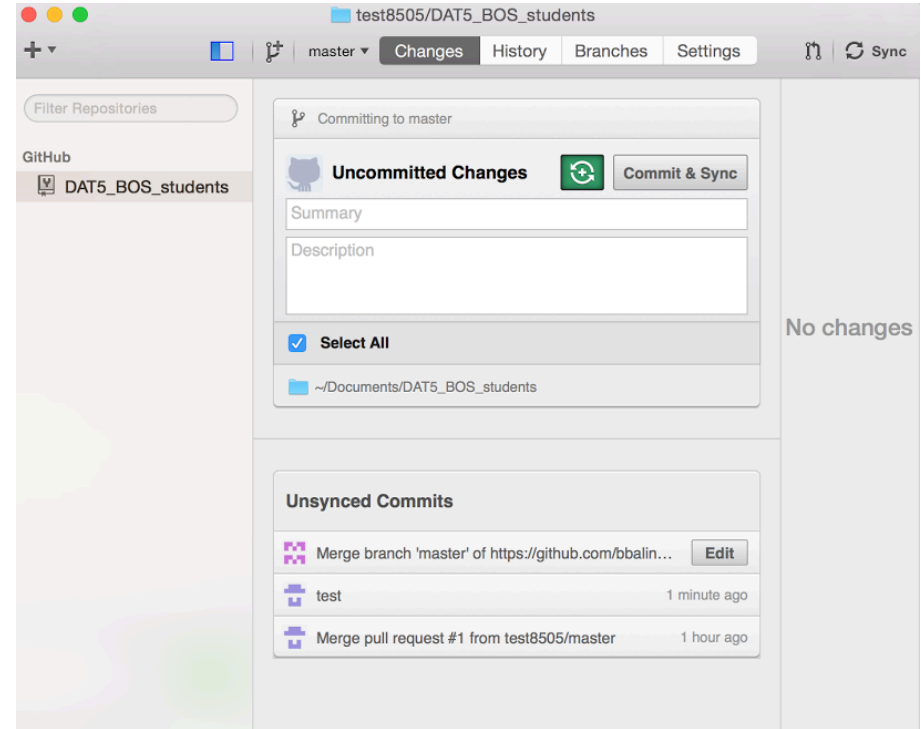
This pull request can be automatically merged.
You can also merge branches on the [command line](#).

 Merge pull request

SYNCING YOUR FORK

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- To pull changes to the master repo made by other users into your fork, click the 'Sync' button in the upper right hand of the GitHub GUI.



GIT AND GITHUB

QUESTIONS?