

# How to fork a repository, and then clone it to your local laptop

1 Navigate to the Github repo, and click on the **Clone or download** green button.

Click the clipboard icon to copy the https link onto your clipboard.

2 On your terminal (MacOS) or command prompt (Windows), navigate to where you want to store the repo (such as your **Desktop**, or **Documents** folder). In my example, I cloned the repo into a folder called **usc-demo**.

3 You should now be able to enter that folder and open up the Jupyter notebooks / PDFs / etc. like any other folder.

A screenshot of a GitHub repository page for 'ychenney / dso-599-text-analytics-nlp'. The page shows basic repository statistics: 31 commits, 1 branch, 0 releases, and 1 contributor. At the top right, there are buttons for 'Unwatch', 'Star', 'Fork', and 'Settings'. Below these are links for 'Code', 'Issues', 'Pull requests', 'Projects', 'Wiki', 'Insights', and 'Settings'. A large 'Clone or download' button is highlighted with a blue circle and arrow, indicating the step to copy the repository URL. The URL 'https://github.com/ychenney/dso-599-t' is visible next to the button. The main area of the page lists various files and their commit history, such as 'README.md', 'LICENSE', and 'Syllabus 3.05.2019.pdf'.

A screenshot of a terminal window showing the command 'git clone https://github.com/yuchen-usc/dso-599-text-analytics-nlp.git' being run. The output of the command is displayed, showing the progress of cloning the repository. The terminal window has a blue circle and arrow highlighting the command line and the output text.

```
2 usc-demo git clone https://github.com/yuchen-usc/dso-599-text-analytics-nlp.git
Cloning into 'dso-599-text-analytics-nlp'...
remote: Enumerating objects: 936, done.
remote: Total 936 (delta 0), reused 0 (delta 0), pack-reused 936
Receiving objects: 100% (936/936), 40.64 MiB | 31.67 MiB/s, done.
Resolving deltas: 100% (80/80), done.
3 → usc-demo
```

# How to sync a forked repository with the upstream original repository

1 Change directory into the newly cloned repository.

2 Check what “remote” repos Git has connected.

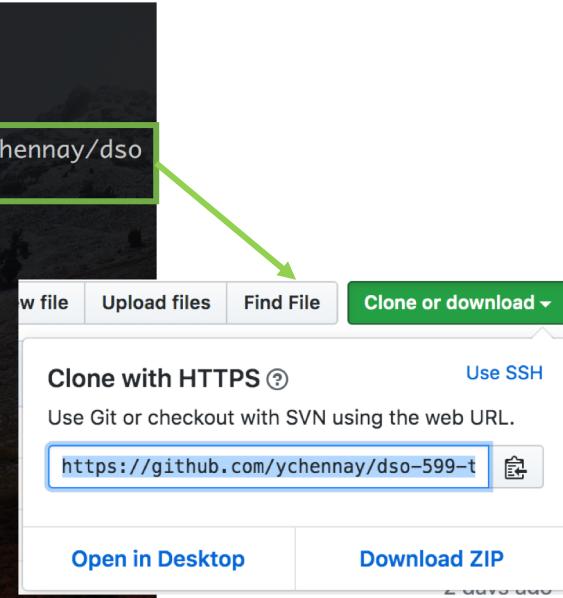
3 **Add the original class repository** as a remote repo. Notice that the link is the same as the link you cloned the original class repo from!

4 Verify that a new remote repo called **upstream** has been, and that it points to the original class repo.

5 **Fetch the latest changes from the upstream repo** (our original class repo) down to your local laptop.

6 **Switch to your forked repo’s master branch** (you should already be on that branch, but this is just in case you aren’t).

```
1 → usc-demo cd dso-599-text-analytics-nlp
2 → dso-599-text-analytics-nlp git:(master) git remote -v
origin https://github.com/yuchen-usc/dso-599-text-analytics-nlp.git (fetch)
origin https://github.com/yuchen-usc/dso-599-text-analytics-nlp.git (push)
3 → dso-599-text-analytics-nlp git:(master) git remote add upstream https://github.com/ychennay/dso-599-text-analytics-nlp.git
4 → dso-599-text-analytics-nlp git:(master) git remote -v
origin https://github.com/yuchen-usc/dso-599-text-analytics-nlp.git (fetch)
origin https://github.com/yuchen-usc/dso-599-text-analytics-nlp.git (push)
upstream https://github.com/ychennay/dso-599-text-analytics-nlp.git (fetch)
upstream https://github.com/ychennay/dso-599-text-analytics-nlp.git (push)
5 → dso-599-text-analytics-nlp git:(master) git fetch upstream
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/ychennay/dso-599-text-analytics-nlp
 * [new branch] master      -> upstream/master
6 → dso-599-text-analytics-nlp git:(master) git checkout master
Already on 'master'
Your branch is up to date with 'origin/master'.
7 → dso-599-text-analytics-nlp git:(master) git merge upstream/master
Updating 8f60ecd..44a482a
Fast-forward
 README.md | 2 ++
 1 file changed, 2 insertions(+)
→ dso-599-text-analytics-nlp git:(master) 
```



The screenshot shows a GitHub repository page for 'dso-599-text-analytics-nlp'. A green arrow points from the terminal output at step 3 to the 'Clone with HTTPS' button on the right side of the page. The button is highlighted with a blue border. Below it are links for 'Open in Desktop' and 'Download ZIP'.

Repeat Steps 5-7 whenever you want to sync repos.

7 **Merge the changes from the upstream (original class repo) with your local (forked) repo.**

**Note:** if you get a merge conflict error, Git is refusing to merge because it will overwrite edited files with the new changes. This is a safecheck to prevent teams from overwriting each other’s work. It will most likely happen if you changed one of the files (made some edits to a completed notebook, etc.). If you are experienced with Git, you can attempt to resolve the merge conflict yourself. If not, just ask me and I’ll walk you through the steps.