Uploading project to Github & submitting your Github URL to Moodle – CLI version

NOTE: You will need "git" installed at the command line for your operating system
(it is installed on the all the college computers already, like php)
Get Git from:
https://git-scm.com/downloads

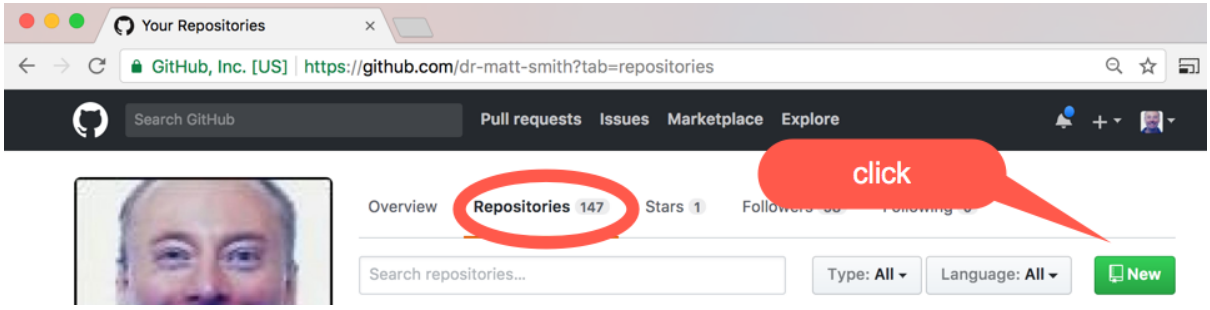
Summary for working at the CLI:

- Create new empty PRIVATE project on Github (with a README)
- Copy URL to clipboard
- At Terminal clone project to local computer
  `git clone <url>`
- Cd into cloned folder
- Copy into cloned folder the files to be uploaded
- Track all new files
  `git add .`
- Commit tracked files to repository "snapshot"
  `git commit –m "added files to project"`
- Upload new commit contents to Github website
  `git push origin master`
- Add **dr-matt-smith** as collaborator

That's it !!!! You should then see on Github that your project files have been "committed" and uploaded

1. New repository create button

Go to the Repositories section of your Github web page and click "NEW"

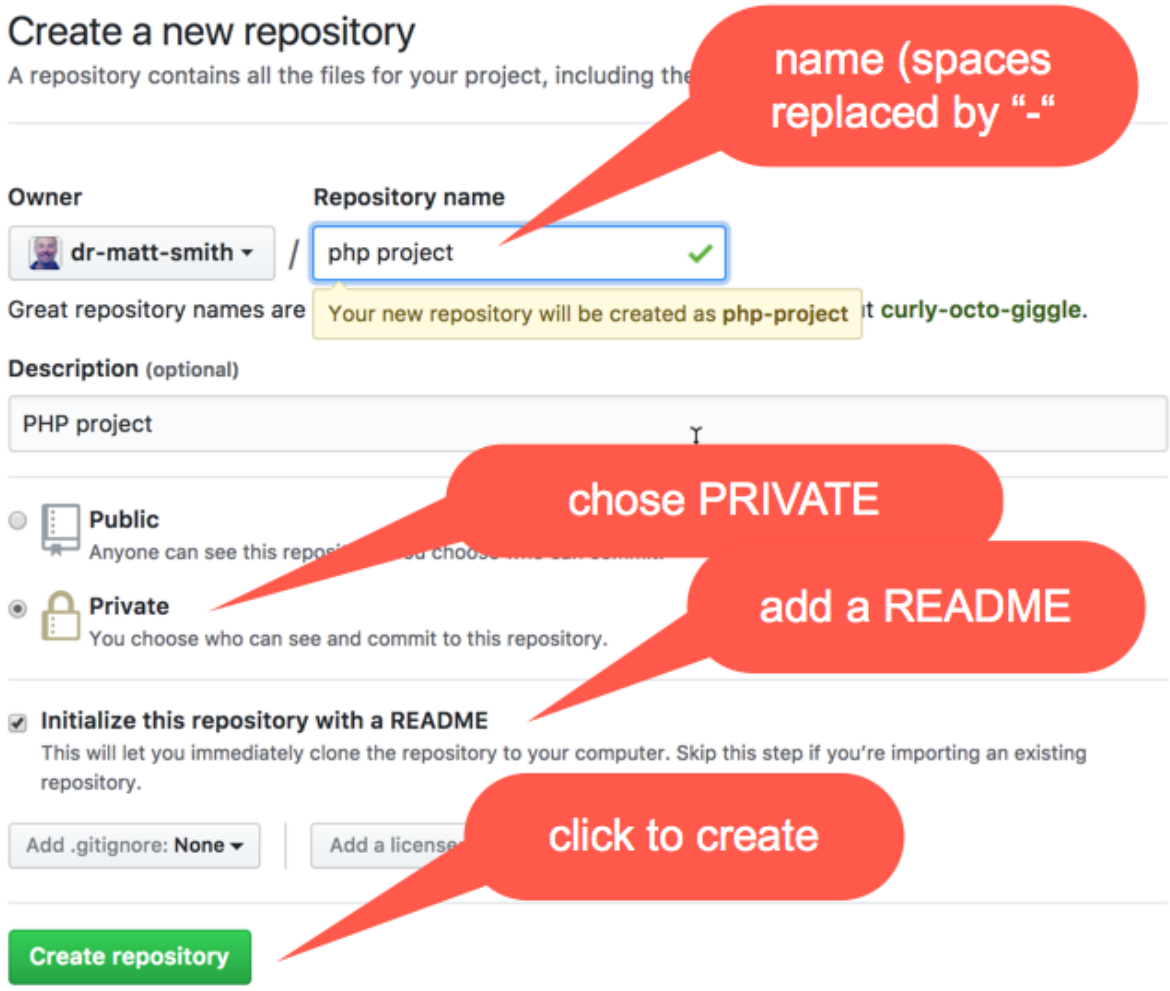


2. New PRIVATE repository details

Enter a name for your project (e.g. php project) – note that any spaces in the name will become "-" (minus-signs) in the URL and 'official' repository name

Click PRIVATE – important, so the code is just for you (and any collaborators you add)

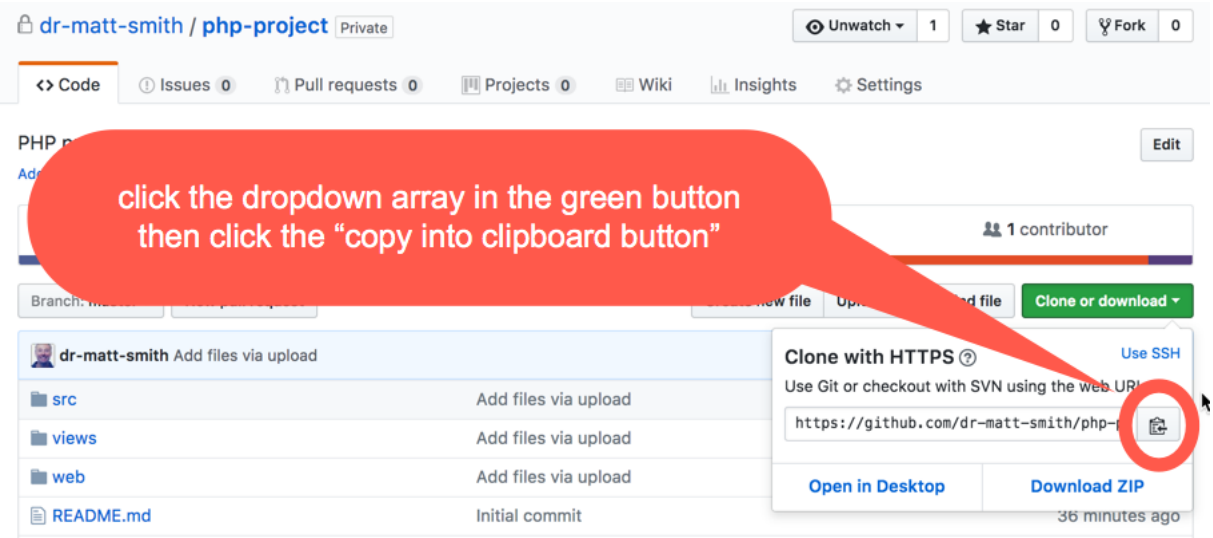
Add a README – this means you can easily work with the Git command line if you wish to



3. Getting URL for “cloning” to local computer

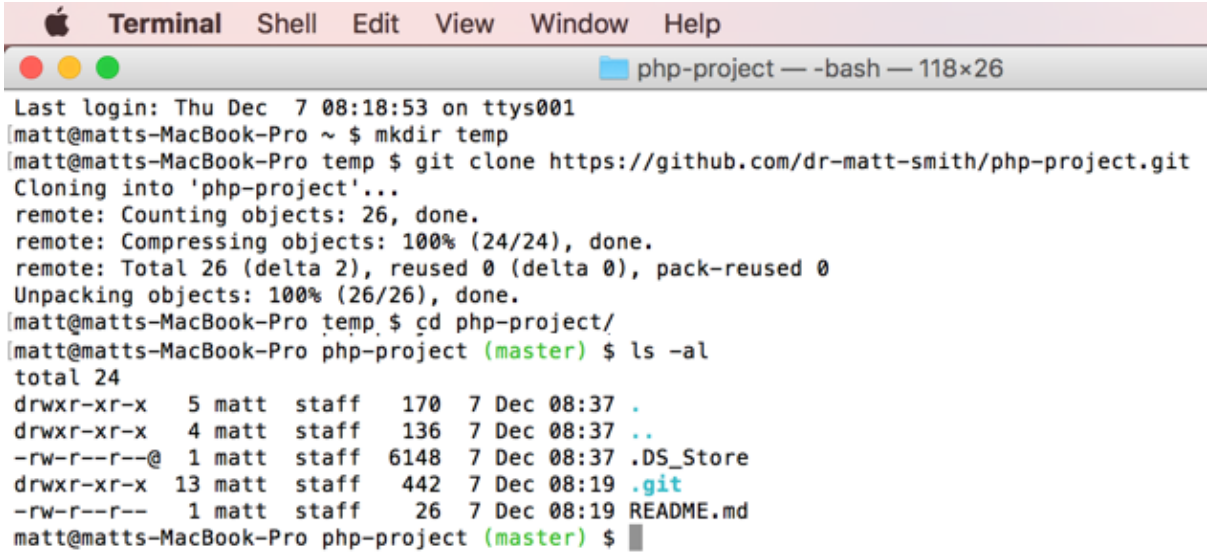
Once you have created your PRIVATE Github repository you can do all the other steps from the command line.

Get the special URL by clicking the dropdown array for the green button “Clone or Download”, then copy the URL into the clipboard



4. “clone” a copy of this repository to your local computer

- work in your Terminal / CLI Command console window
  create a folder where to work (temporarily) on your Github project
  (e.g. **temp** or **github**)
  `matt> mkdir temp`
- cd into your temporary folder
  `matt> cd temp`
- cd into your temporary folder
  `matt/temp> git clone <url>`
- now you can cd into the newly download Github project folder (same name as your project)
  `matt/temp> cd php-project`
- you can now see a copy “clone” of the Github files on your local computer, including the special .git hidden folder (which contains the entire history of changes made to your project!)
  `matt/temp/php-project>ls -al (or ‘dir’ for windows!)`



5. Copy your project files from your local computer into the newly cloned temporary folder

NOTE – do NOT copy folder: **/vendor**

Vendor can always be re-created with command: **composer install**

It can be a large folder, and it's all third party stuff and autoloader – nothing in there needs to be archived. If you do include vendor it will just slow things down and make bigger files – but it won't break your project – avoiding vendor for Github just speeds things up …

Learn about .gitignore files – a way to have ignored folders that can be in your project folder but will NOT be added to your commits or uploaded to Github

You have your working PHP project files somewhere on your local computer, let's assume in:

`matt/itb/php/sports-project`

We have created a temporary clone of our Github project in:

`matt/temp/php-project`

We need to simply COPY all the project files into our php-project folder, then we can upload them to Github

Copy the contents of your working PHP project into our temporary Github project folder

Either (A) drag-and-drop with your systems GUI

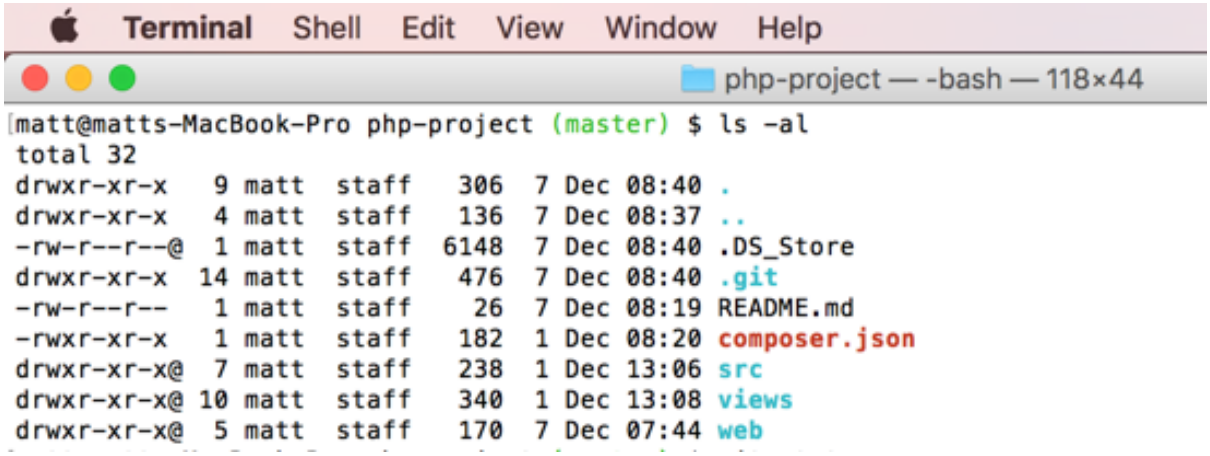
Or (B) copy the files at the command line, e.g.

- Ensure you are in your Github project folder
  `matt/temp/php-project>`
- Use your CLI copy command (cp for linex, copy for windows) to copy FROM your working project folder into the current folder "."), e.g.

```
cp matt/itb/php/sports-project/*.* .
```

Now list your project files – they should have been added to your Github projects files:

- **`matt/temp/php-project>ls -al (or 'dir' for windows!)`**



6. Check status of files in your repo folder: git status

Type
`git status`
to see status of files/folders at any time:

Files in **red** (if your CLI has colour settings on) need to be added (or ignored)

```
Terminal  Shell  Edit  View  Window  Help
                                    php-project — -bash — 118×44
matt@matts-MacBook-Pro php-project (master) $ git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        composer.json
        src/
        views/
        web/

nothing added to commit but untracked files present (use "git add" to track)
```

7. Add files to be 'tracked': git add

Type
`git add .`
to add all untracked changed files to the list to be tracked

The check status again – all those files/folders should be **green** now!

```
Terminal   Shell   Edit   View   Window   Help
                                   php-project — -b
matt@matts-MacBook-Pro php-project (master) $ git add .
matt@matts-MacBook-Pro php-project (master) $ git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        new file:   composer.json
        new file:   src/AdminController.php
        new file:   src/MainController.php
        new file:   src/SessionManager.php
        new file:   src/UserController.php
        new file:   src/WebApplication.php
        new file:   views/_template.html.twig
        new file:   views/about.html.twig
        new file:   views/adminDeleteAll.html.twig
        new file:   views/adminHomepage.html.twig
        new file:   views/errorNotLoggedIn.html.twig
        new file:   views/homepage.html.twig
        new file:   views/login.html.twig
        new file:   views/loginError.html.twig
        new file:   web/css/nav.css
        new file:   web/css/style.css
        new file:   web/index.php
```

8. Commit with message

We now need to commit to these changes for a new version of our repository
Type:

`git commit –m “added files to project”`

```
Terminal  Shell  Edit  View  Window  Help
                                  php-project — -bash — 118×44
matt@matts-MacBook-Pro php-project (master) $ git commit -m "added files to project"
[master 48c3a70] added files to project
 17 files changed, 571 insertions(+)
 create mode 100755 composer.json
 create mode 100755 src/AdminController.php
 create mode 100755 src/MainController.php
 create mode 100644 src/SessionManager.php
 create mode 100755 src/UserController.php
 create mode 100755 src/WebApplication.php
 create mode 100755 views/_template.html.twig
 create mode 100755 views/about.html.twig
 create mode 100755 views/adminDeleteAll.html.twig
 create mode 100755 views/adminHomepage.html.twig
 create mode 100755 views/errorNotLoggedIn.html.twig
 create mode 100755 views/homepage.html.twig
 create mode 100755 views/login.html.twig
 create mode 100755 views/loginError.html.twig
 create mode 100644 web/css/nav.css
 create mode 100644 web/css/style.css
 create mode 100755 web/index.php
matt@matts-MacBook-Pro php-project (master) $ git push origin master
```

9. “push” up to the Github website repository

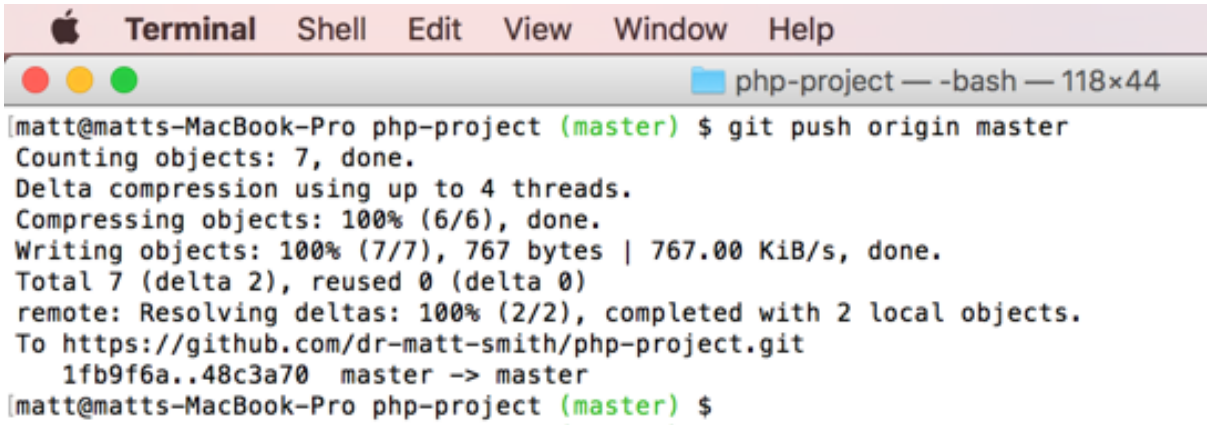
We now need to “push” the changed project up to the Github website with
`git push origin master`

because we started this process by “cloning” down onto our computer from the Github repository, then Git knows where the online repository is (its “remote”). So when we give the “push” command it knows to push changes back to the same Github URL.

In the sceeenshot you can see it was pushed To:
https://github.com/dr-matt-smith/php-project.git

which you can break down as: **https://github.com/<git user>/<repo name>.git**

If you want to see the remote settings just type:
`git remote –v`



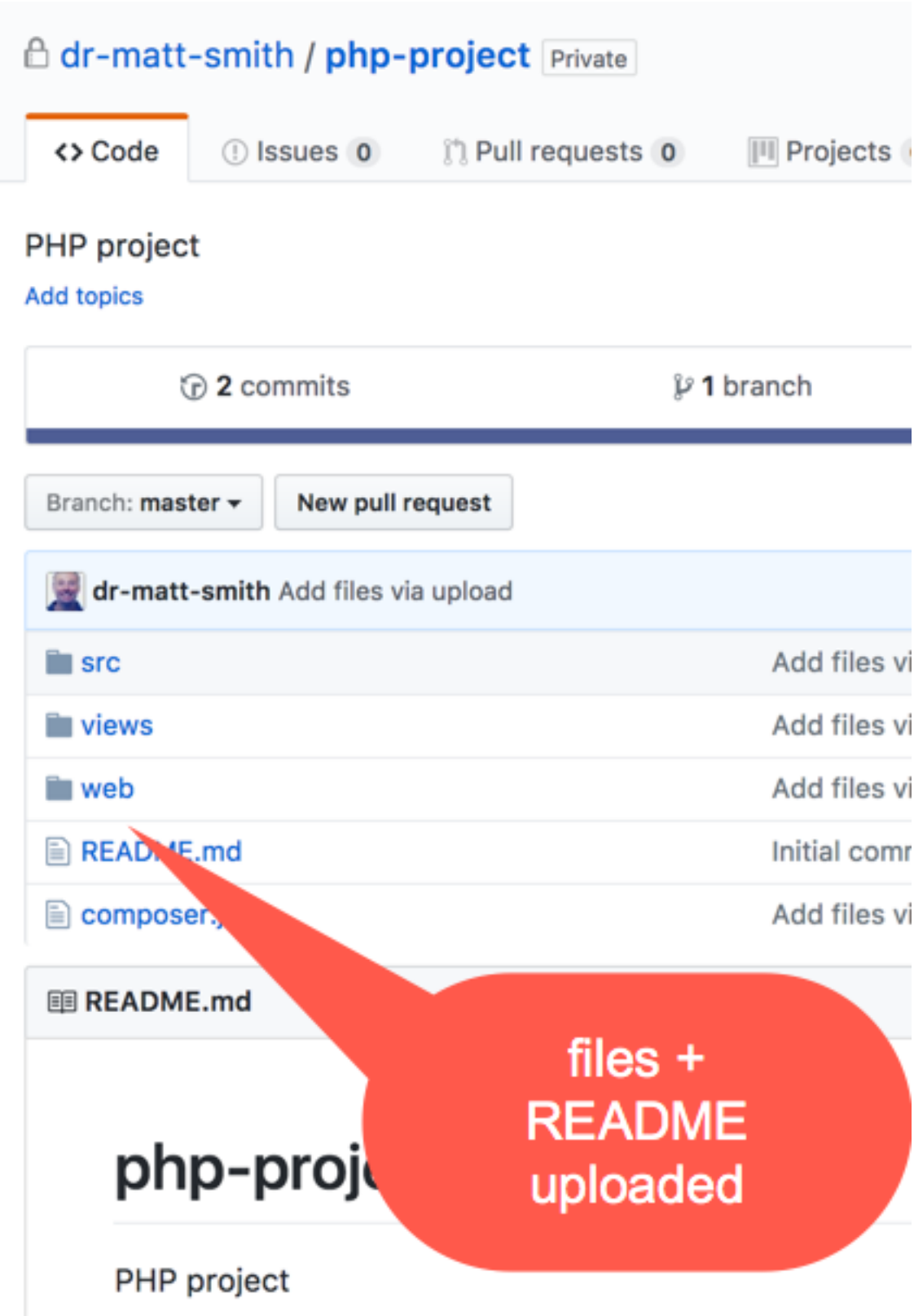
That’s it – you have now committed and uploaded changes to your project.

NOTE:
If you keep this folder on your laptop as your working project folder, each time you make a change you’d like to keep (and upload) just type:

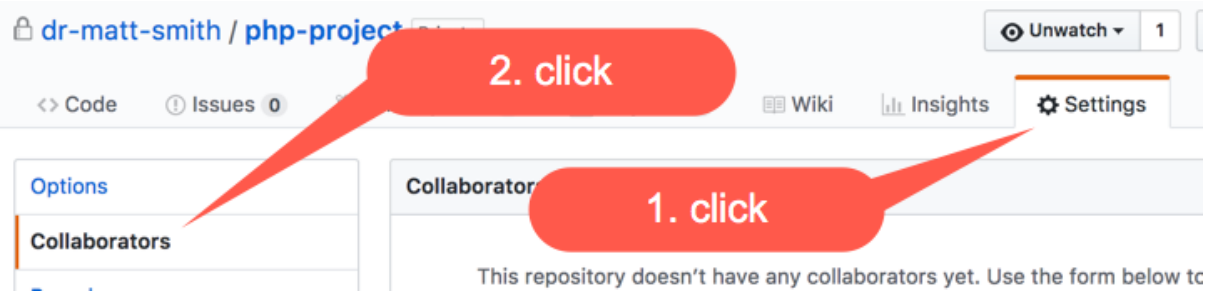
```
git add .
git commit –m “<summary of change>”
git push origin master
```

And you’ll have added a new “version” of your project on Github

10. Upload complete –files and folders in repository on Github



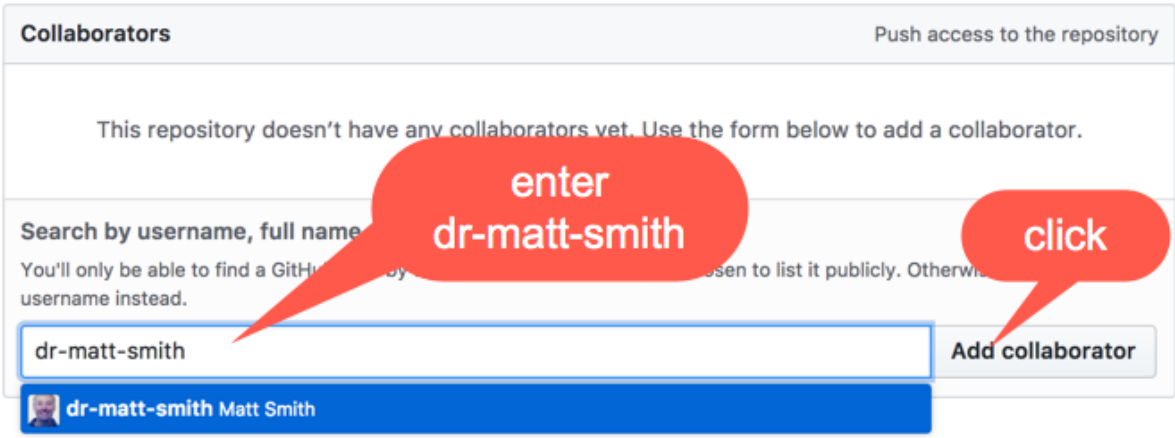
11. Choose settings - collaborators



12. Enter dr-matt-smith as collaborator to your project

You **must** add dr-matt-smith as a collaborator to your project
Since your repository is PRIVATE Matt can only download your files if you do this step

If you don't, then you haven't succeeded in making files available to Matt for grading !



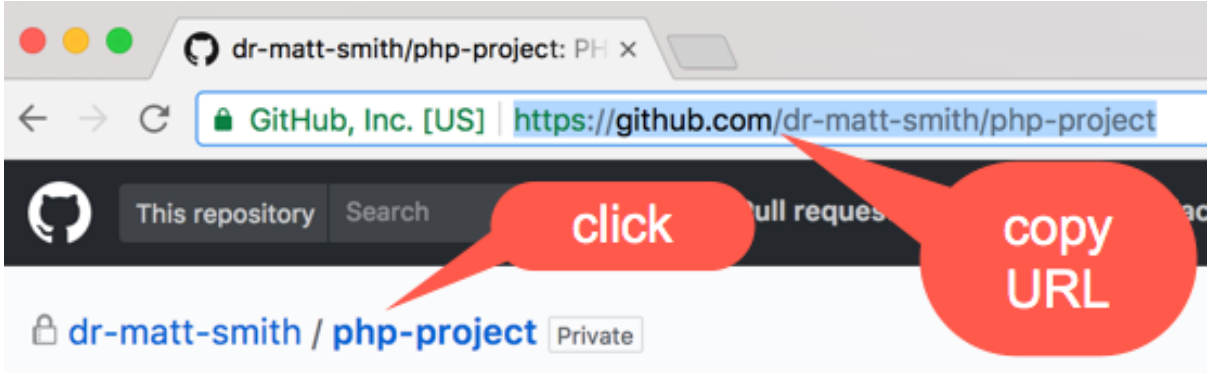
13. Copy project URL to clipboard and submit to Moodle

The final step is getting the project's URL – to submit to Moodle

Just click the blue project name (in my example "php-project") to return to the project home page
Then copy the URL web address in the web browser address bar

Then go to Moodle and submit that URL

That's it – you have created a private Github project and made it available for Matt to download.



Think of Github as a free cloud storage for all your college work

- It works best:
  - With text-based projects (like computer programs!)
    - But can be used with Word documents, PDFs, Excel files
    - Even multimedia projects such semester 2 Unity games …
  - When you get the hang of the command line approach, you'll find that even faster to use …