Lab 1.3 GitHub

Clone https (you can use this to get sample code)

1. Get the url you want:

either my URL

```
https://github.com/andrewbeattycourseware/pforcs2021.git
```

Or from github

   a. Go to GitHub
   b. Select the repository you want to clone (create one if required)
   c. In code select the https
   d. Copy the url to the clipboard by clicking the clipboard symbol on right

2. Go to CMDER (or terminal in VSCode)
3. Navigate to where you want to make the repository
4. Clone the repository (you can paste the name in right clicking)

```
git clone PASTED.URL
```

5. Set the pull mode to merge

```
git config pull.rebase false
```

6. Pull the content of the remote repository

```
git pull
```

7. If this was your repository you could add files and directories to it, commit and push, but you would have to enter your username and password each time you push…. This can be a pain so it would be easier if you could tell GitHub that the machine that you are on has permission to push to your repository…. That is where SSH comes in….

Clone using SSH (handy for your repository)

1. More information on this

[About SSH - GitHub Docs]

2. Check if there are any keys already on your machine

~ is resolved to be your home directo

```
ls ~/.ssh
```

3. If none create one key pair

```
ssh-keygen -t ed25519 -C "your.email@gmit.ie"
```

ssh-keygen creates a key pair
ed25519 used for encryption
-C email, this is probably not required

4. Copy the public key to clipboard

```
clip < ~\.ssh\id_ed25519.pub
```

clip	is the clipboard
<	redirect input

5. Go to GitHub
6. Click the icon in the top right and select settings
7. Select SSH and GPG keys
8. Click new SSH key and paste in the public key

You are now ready to clone your repository on GitHub

9. Go to the repository that you want; you may need to make one in your GitHub
10. Select code
11. Select SSH and copy the URL by clicking the clipboard

```
git@github.com:yourAccount/theRepository.git
```

In the terminal on your machine (CMDER).

12. Navigate to where you want to put this repository on your machine.
13. Clone the repository like you did with HTTPS

```
git clone PASTED.URL

git config pull.rebase false

git pull
```

So, assuming that you cloned your repository on GitHub, you can add files to it.

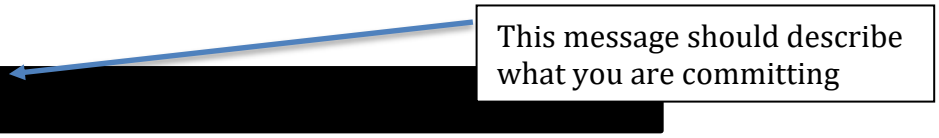
14. Create the file (and/or directory)

```
mkdir nameOfDirectory
cd nameOfDirectory
echo "test content" > test.txt
cd ..
```

15. Add these to the repository on your machine

```
git add .
```

16. Commit the changes




```
git commit -m "test"
```

17. Push these changes to GitHub

```
git push
```

18. Go to GitHub and see if the changes were made to your repository on it.

Extra Creating a repository on local and linking with GitHub

1. Create a repository on GitHub
2. Go into the repository, click code and copy the URL (for either HTTPS or SSH if you have set up your keys already)
3. Navigate to the directory that you wish to make a repository out of.
4. Create the repository

```
git init
```

5. Set pulling mode

```
git config pull.rebase false
```

6. If you try to pull now you will get an error like

```
git pull
There is no tracking information for the current branch.
Please specify which branch you want to merge with.
See git-pull(1) for details.

    git pull <remote> <branch>
```

7. To solve this: fetch the code (this gets the code from GitHub)

```
git fetch
```

8. And checkout the code on the remote branch (in my case *main*) this says which branch you want to work with.

```
git checkout main
```

9. You can now push your code to the remote repository

```
git push
```

Danger if you need to remove a repository from your machine just delete the .git directory

10. Check If the .git directory exists

```
ls -a
```

11. You can delete the repository (and not the files in it) Danger

```
rm -rf .git
```

12. Or you can delete the directory containing the repositoryDanger, cd to the parent directory of directory that contains the repository

```
rm -rf nameOfDirectoryContainingTheRepository
```