



Q1: _____ (50points)

First make sure you have the command line git tools installed (these will be installed by default on linux/mac). Try Github desktop on windows, or use your AWS instance. Try to use Eclipse but try to build up some experience with the command line tools aswell.

- (a) Open a command line shell and check the git config:

```
git config --global -l
```

Configure some settings:

```
git config --global user.name "Joe Bloggs"
```

```
git config --global user.email "joe@ucd.ie"
```

- (b) Explore the pandas repository on Github. Make sure you know where to find the issues, source, contributors, graphs etc.

<https://github.com/pandas-dev/pandas>

Any other large repository will do here, pandas is just an example.

- (c) Using Eclipse, switch to the git perspective and clone the pandas repository from Github.

- (d) Create a new project, and set the 'project contents' to point to the directory where you just cloned the pandas repository.

- (e) From the command line run:

```
git log -n 10
```

This will display the history of the last 10 changes made to the repository.

- (f) Add a file to the repository.

... create a new file and add a simple python function

```
git add new_pandas_func.py
```

or in Eclipse (right click, Team -> Add to index...)

Now commit the file. After committing (do not push!), check the log

```
git log -n 5
```

or in Eclipse (right click project -> Team -> Show in History).

Check the status from the command line

```
git status
```

- (g) What branches are being used in the development of pandas?

- (h) List some of the recent tags in the repository.
- (i) The current release version of pandas is 0.22.x. Checkout release version for tag: v0.22.0. Investigate some of the differences between this version and the release version (or the HEAD of the repo).

```
git checkout v0.22.0
```

or in Eclipse (Team -> Switch To... -> Other)

After changing to this branch, what does the status tell you? What has happened to the file you committed on the master branch? Checkout the master branch again and check your file still exists there.

Find how many files are added in each new version of pandas from v0.15.0, v0.16.0, v0.17.0, v0.18.0, v0.19.0, v0.20.0, v0.21.0?

Links:

[Git Book: Basics](#)

[Git: The Simple Guide](#)

[Git Reference](#)

[Clone repository](#)

[EGit tutorial: Starting from Existing Git Repos](#)

[Learn Version Control with Git](#)