Lab 1 - Introduction to Git

In short, Git is a versioning system for your source code and files, but it definitely does more than that. If you are coming from another VCS such as subversion, you will need to clear your mind (at least temporarily), to forget everything about that, as Git sees things from a different perspective.

Create a new repository

Open cmder, and create a new folder name `git_ex1` in your working directory (e.g. My documents), and run the following command

```
$ cd git_ex1
$ git init
```

This is to initialize a new repository in the current folder.

Now let's add some files to the folder. Create a file `index.html`

```
<h1>Welcome to Git!</h1>
```

Check status

```
$ git status
```

You will see the following message:

```
On branch master

Initial commit

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        index.html

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

Add the file into repository

Let's proceed to add files into your repository, using the following command.

```
$ git add .
```

Check the status again using the `git status` command, and now we can see that our files has been added for staging.

```
On branch master

Initial commit

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

        new file:   index.html
```

Commit the files

So far we have initialize a repository, created a new file and added it for staging. But, it has not been added to our repository database, i.e. committed. Next we will have to perform the following command to commit the files.

```
$ git commit -m "My first commit"
```

The `-m` switch is for us to enter our commit message. This message is to describe what are the changes that have been made, or usually ties with a particular bug or feature in agile software development.

If all the steps are followed and commands are entered correctly, you will see the follow message:

```
[master (root-commit) 66ee0f0] My first commit
 1 file changed, 1 insertion(+)
 create mode 100644 index.html
```

Run `git status` again, we will see that:

```
On branch master
nothing to commit, working directory clean
```

which indicates that the working directory is clean and we have nothing to be committed.