Day I - Part I - Introduction to command line

December 9, 2020

1 Introduction to command line

Identify and open your command line interface.

- Windows: we will choose to use **Git bash** (which was installed on your machine when you installed Git).
- nix (another way to describe Mac OS and/or Linux machines): we will use the system **terminal**.

2 Finding your computer's name.

Let us first let's find out the name of your computer by running:

```
$ whoami
```

3 Finding your current location

Now let's find out which directory (folder) we are currently in:

```
$ pwd
```

This stands for "present working directory"

Type the command in and press enter. It should list where you are currently located in your command line interface.

4 Seeing what is in your current location

To view the contents of the current directory:

```
$ ls
```

This stands for "list"

Type the command in and press enter. You should see a list of the various files and directory in your current directory. Open your current directory in a graphical user interface and compare.

5 Moving to another location

If you want to enter a directory that is in your current directory type:

```
$ cd <directory>
```

Try moving to your Desktop. It should be something like:

```
$ cd Desktop
```

6 Creating a directory

To create a directory:

```
$ mkdir <directory_name>
```

Experiment with creating a directory for this workshop:

```
$ mkdir rsd-workshop
```

If your directory structure looked like this:

```
|--- home/
|--- Desktop/
     |--- research
     |--- photos
```

It will now look something like:

```
|--- home/
|--- Desktop/
     |--- research
     |--- photos
     |--- rsd-workshop
```

As an exercise move into the directory we just created:

```
$ cd rsd-workshop
```

and create two further directories:

```
|--- rsd-workshop
     |--- src
     |--- test
```

If you now wanted to go back to the "parent" directory:

```
$ cd ..
```

Where `..` is short hand for a previous directory.

Experiment with these, in combination with the command to find your current location as well as the command to list the contents of your directory.

7 Creating a file

To create a directory:

```
$ touch <file_name>
```

Experiment with creating a file named `addition.py` in the directory `rsd-workshop`.

```
$ touch addition.py
```

If you type `ls` you will see that the file has been created.

8 Copying files

To copy a file:

```
$ cp <file> <new_file_directory_and_name>
```

Experiment with copying any file.

9 Moving/renaming files

To move a file:

```
$ mv <file> <new_file_directory_and_name>
```

Experiment with moving any file. Note that if you want to rename a file you can do this by passing the new name in the same directory.

WARNING When using the command line interface you will not be prompted for confirmation if move/mv were to overwrite another file. Be careful.

10 Deleting files

To delete a file:

```
$ rm <file>
```

11 Copying and removing directories

To copy a directory:

```
$ cp -r <dir> <target>
```

To remove a directory:

```
$ rm -r <dir>
```

[ ]: