

Homework 02

1. Create a directory in the top-level of the homework directory named **files**. You will use this directory to store various files that you will have to create for this assignment.
2. The top-level homework directory contains a directory named **simulations**, which contains a directory named **backups.201601**. Go into this directory.
 1. Create a file named **data-02.txt.head** that contains the first 10 lines of the file named **data-02.txt** and move this into the **files/** directory.
 2. Create a file named **data-01.txt.head** that contains the first 5 lines of the file named **data-01.txt** and move this into the **files/** directory.
 3. Create a file named **data-03.txt.tail** that contains the last 2 lines of the file named **data-03.txt** and move this into the **files/** directory.
 4. Create a file named **data.txt.last_lines** that contains the last line of each file in this directory, and move the file into the **files/** directory.
 5. Which of the files in this directory has the most lines?
3. The homework directory contains a directory **data/**. Inside this directory is a file named **random-samples-01.txt** that contains a list of random numbers that were collected during a photon counting experiment.
 1. What number is on the 10'th line in this file?
 2. What number is on the 43'rd line in this file?
 3. What number is on the 2'nd to last line of this file?
 4. How many lines does this file have?
 5. Does this file contain the number 339 ?
 6. Does this file contain the number 1388?
4. How many regular files (non-directories) are in the entire homework directory tree (not including any files that you have created)? Meaning, how many files are there in the top-level directory, and all subdirectories?
5. How many directories are in the entire tree under the **simulations/** sub-directory?
6. Go into the **files/** directory you created in the top-level homework directory.
 1. Create a file named **plain_text_file.txt** using the 'nano' text editor that contains the text **This line was added by me.**

2. Create a file named `config_files.txt` that contains a list of every regular file (non-directories) that is under the 'config/' sub-directory tree of the homework directory, without changing directories.
3. The homework directory tree contains one or more files that have the text **Easter Egg** in it. Create a file named `easter_egg_files.txt` that contains a list of these files.
7. In the top-level of the homework directory, run the following command:

```
touch completed.txt
```

8. In the top-level of the homework directory, create a directory named `signature/`.

1. Go into the `signature/` directory and run the following command:

```
echo "${USERNAME}" > username.txt
```

where `${USERNAME}` is your username. For example, I would run the command

```
echo "cclark" > username.txt
```

2. While still in the `signature/` directory and run the following command:

```
md5sum username.txt > username.md5
```