Homework 01

1. How many files are in the directory named `data/`.

2. Remove the file named `data-04.txt` in the directory named `simulations/backups.201606`

3. The homework directory contains a directory named `config/`, which contains a directory named `physical_quantities/`. Go into this directory. The homework directory also contains a directory named `data/`, which contains a file named `tmp.txt`. Delete this file without leaving the `physical_quantities` directory.

4. The homework directory contains a directory named `media/`, which contains a directory named `videos/`, which contains several (empty) movie files. Go into this directory.

    1. How many of the movie files have the .avi extension?

    2. Remove all the movie files that have a .mov extension without removing any other files.

5. The homework directory contains a directory named `media/`, which contains a directory named `music`. Go into this directory. This directory contains an MP3 collection. The MP3s are organized in directories named after the album, which are themselves organized in directories named after the artist.

    1. Determine how many albums by Miranda Lambert are in the collection without changing directories.

    2. Remove all directories for albums by the Crash Test Dummies without changing directories or removing the artist directory.

    3. Remove all MP3 files (but only MP3 files) of songs by Ozzy Osbourne without removing the album directories, and without changing directories.

    4. The MP3 collection contains an error. The directory named "Wade Bowon" is a typo, and should be "Wade Bowen". Go into the correct directory (`Wade Bowen/`) and move all album directories in the incorrect directory (`Wade Bowon/`) into it without changing directories. Then remove the incorrect directory, again, without changing directories.

6. The homework directory contains a directory named `simulations/` which contains a directory named `storage/`. Go into this directory.

    1. How many directories are in this directory?

    2. How many files that begin with `config` and end with `bin` are in this directory?

    3. Remove all files with the `.txt` extension in this directory.

    4. The directories named `dayXX` (were XX is a 2 digit number) contain directories named `tmp` which contain temporary files that can be deleted. Delete these directories without changing directories.

5. The directories named `dayXX` contain several directories, some of which contain files with the `.bin` extension. Delete all of these files (but only the ones in a subdirectory of the `dayXX` directories) without changing directories.

7. In the top-level of the homework directory, run the following command:

```
touch touched_file.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 "${CLASS_USERNAME}" > name.txt
      ```

      where `${CLASS_USERNAME}` is your class user name (first initial + last name, all lowercase). For example, I would run the command

      ```
      echo "cclark" > name.txt
      ```