5:W35: Managing Files on Steroids with Shell

DESCRIPTION

Your supervisor has shared a [folder of photos on Sciencedata.dk](#) with you (password is 2020CDS, folder is 500Mb and contains 189 images) and needs your help with a couple diagnostics:

Identify 3 biggest files

1. **Identify the names and format of the 3 biggest files. Can you come up with a command to generate a numerically ordered list of 3 biggest files? (hint: consider using** wc **to gauge image size)**

I use the following commands (see screenshot) that are also explicitly described in the table below. The names and formats of the 3 biggest files are:
1) 9240_Overview_S.RW2 *
2) 9247_Overview_SW.RW2
3) 9237_Overview_W.RW2.
All 3 files have the format .RW2 which is a raw camera image taken by a Parasonic LUMIX series camera.

Step order	Command	What for?
1	cd	Set directory to *photos* folder
2	pwd	Check that I am in the correct directory
3	ls -laSh	the flag -l means long listing, and -a means that I want to include all files, i.e., also the hidden files. The s indicates that I want to list all files and sort them by size in descending order. The h indicates that I want to output the file sizes in a human-readble format
4	wc -c ^name_of_biggest_file^	To get the **count of bytes** present in a file

2. Some of the image files are empty, a sign of corruption. Can you **find** the empty photo files (0 kb size) , count them, and generate a list of their filenames to make their later replacement easier?

Pipe all empty files to a text (one file name on different line)
wc to get lines in the file name

Finding empty photo files and generate list of their filenames: `find . -name '*.*' -size 0 > empty.txt` adding list of empty files to .txt file by piping.

Counting empty photo files: `wc -l empty.txt` to check number of lines (i.e. count number of empty photo files) in the .txt file.

https://swcarpentry.github.io/shell-novice/04-pipefilter/index.html

I get 74 from the above command, but the file empty.txt is also in the photos folder, so that means that there are 73 empty image files.

3) **Optional/Advanced:** Imagine you have a directory goodphotos/ (same password as above) with original non-zero-length files sitting at the same level as the current directory. How would you write a loop to replace the zero length files?

```
if [ ! -s /tmp/foo ] ; then
  rm /tmp/foo
fi
```