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:

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)

My answer:

To find the three largest files, you can write :

```
joshu@LAPTOP-0GRD0F73 MINGW64 ~/OneDrive/Desktop/HW
$ du *|sort -r -n|head -3
14416   9240_Overview_S.RW2
14388   9247_Overview_SW.RW2
14372   9237_Overview_W.RW2
```

Where :

Du *: measures the disk space that files use and * says I want to count all files in the folder

Sort -r -n : sorts the first character of each line of a file and outputs it in alphabetic order, and -r and -n displays them in reverse numerical order.

Head -3: shows the first the lines of the output, which will be the first biggest files.

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?

To find the empty files and store them in a document you can write:

```
joshu@LAPTOP-0GRD0F73 MINGW64 ~/OneDrive/Desktop/HW
$ find. -name'*.*' -size 0>empty_files_listed.txt
```

Where:

Find. -name : searches for files in the directory

‘*.*’: specifies that it can be all file formats and names (the . does that)

-size 0: specifies that the files have a size of 0

>. **Empty_files_listed.txt**: puts the output in a textfile.

With wc -l empty_files_listed.txt we can get a count on the empty files which are 74 files.

```
joshu@LAPTOP-0GRD0F73 MINGW64 ~/OneDrive/Desktop/HW
$ find -name '*.*' -size 0 >empty_files_listing.txt

joshu@LAPTOP-0GRD0F73 MINGW64 ~/OneDrive/Desktop/HW
$ wc -l empty_files_listing.txt
77 empty_files_listing.txt
```

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?

Sorry 😊