

## 5:W35: Managing Files on Steroids with Shell

**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)**

Navigate into correct directory with the command:

```
cd ~/Desktop/Uni/CDS/HW
```

Find the 3 biggest files with the command (we write 4 rather than 3 as there is also a row displaying the 'total'):

```
wc *.JPG | sort -r | head -n 4
```

We get the output:

```
14761472 9240_Overview_S.RW2
14733312 9247_Overview_SW.RW2
14713856 9237_Overview_W.RW2
```

So the three biggest files are in order are:

```
1) 9240_Overview_S.RW2
2) 9247_Overview_SW.RW2
3) 9237_Overview_W.RW2
```

**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?**

We are in the right directory now. Firstly, we can find the files with the following command:

```
find . -type f -empty
```

It gives the output. This has also generated a full list of their file names (only showed the top items here to save space) which we can use to make their later replacement easier:

```
./9289_Overview_S.JPG
./9318_overview_W.JPG
./9292_Overview_SE.JPG
./9306_ovrview_N.JPG
./9322_overview1_S.JPG
./9265_Overview_W.JPG
./9302_overview_W.JPG
./9278_Overview_W.JPG
./9287_Overview_S.JPG
(continued...)
```

We obtain a count of them with the following command:

```
find . -type f -empty | wc -l
```

Based on this, we get the output that there are 73 empty 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?