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: try using the **wc** command)

Step 1; I navigate to Desktop using cd command, and then to the folder HW. As for some reason, my default settings don't show me the path, but to check where I am, I use pwd (Print Working Directory) command.

Step 2; I then use the wc -c which displays count of bytes present in a file. Then by using the find command, to find all (*) file names, in the current directory (.) that end with ".jpg". I then insert the and command |, and sort it numeric.

```
[bash-3.2$ cd Desktop
[bash-3.2$ cd HW
[bash-3.2$ pwd
 /Users/idamarie/Desktop/HW
[bash-3.2$ wc -c $(find . name "*.jpg") | sort -n
```

Step 3; Here is a screenshot of the bottom 3 files, which are the largest.
```
  14713856 ./9237_Overview_W.RW2
  14733312 ./9247_Overview_SW.RW2
  14761472 ./9240_Overview_S.RW2
 516237290 total
```

2. Some of the image files are empty, a sign of error in the data processing or corruption. Generate a list of empty photo filenames to facilitate their later replacement easier? (hint: look up **find**)

Step 1; I use the same command as last, but ad the -size 0 to find files which have a size of zero. Another way would be to use the -empty command (wc -c $(find . name "*.jpg" -empty)

```
[bash-3.2$ wc -c $(find . name "*.jpg" -size 0)
 find: name: No such file or directory
 find: *.jpg: No such file or directory
        0 ./9289_Overview_S.JPG
        0 ./9318_overview_W.JPG
        0 ./9292_Overview_SE.JPG
        0 ./9306_ovrview_N.JPG
        0 ./9322_overview1_S.JPG
        0 ./9265_Overview_W.JPG
        0 ./9302_overview_W.JPG
        0 ./9278_Overview_W.JPG
        0 ./9287_Overview_S.JPG
        0 ./9322_RT(detail).JPG
        0 ./9317_overview_E.JPG
        0 ./9264_Overview_W.JPG
        0 ./9271_Overview_W.JPG
        0 ./9270_Overview_S.JPG
        0 ./9303_overview_W.JPG
        0 ./9319_overview_W.JPG
        0 ./9277_Overview_NW.JPG
        0 ./9321_RT(detail)_S.JPG
        0 ./9288_Overview_S.JPG
        0 ./9304_overview_pool.JPG
```

3. CHALLENGE (Easy to Medium): Write a shell script called emptyfiles.sh that takes the name of a directory and generates a list of empty photo filenames (remember to pick up all extensions) . So that, for example, running $ bash emptyfiles.sh Downloads/badphotos produces a list of empty file filenames either in the terminal or in an external textfile. Can you eliminate the ./ notation at the start of the filename?

4. CHALLENGE (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?