[Answer Key] Assignment 3: The Shell cont

Practice with Scripts

Please note that to do this section, you must have completed Assignment 2.

Remember the new folders we created at the start of the previous assignment? The data/processed folder is empty, and now we have something to put it in. You should be in the north-pacific-gyre/2012-07-03 directory. Create a new shell script called cleanup.sh that will copy all of the "stats" files to the north-pacific-gyre/data/processed folder. Take a screenshot of the script while you are in the nano editor.

https://drive.google.com/file/d/1zoBhXX3FzcYHjLsyyvKC5XGZ0hwmt0QU/view?usp=sharing

In the future, you may decide to prefix the processed folder with something else besides "stats". Modify your previous script so that it will take one positional argument - that positional argument being the prefix that indicates a processed file. Copy the command here:

```
cp "$1"-*.txt ../data/processed/
```

Now, run the cleanup.sh file with the positional argument "stats". Then, take a look in the data/processed folder to double check. Take a screenshot to show your work

https://drive.google.com/file/d/1qJddZC8CN62w4RHul7JHGSHtnmAm5qV8/view?usp=sharing

Practice Finding Things

The -v option to grep inverts pattern matching, so that only lines which do not match the pattern are printed. Given that, what command will find all files in the data directory whose names end in "s.txt" but whose names also do not contain the string "net"? (For example, animals.txt or amino-acids.txt but not planets.txt.)

```
find data -name "*s.txt" | grep -v net
```

Explain what the following command does in plain english:

```
wc -l $(find . -name "*.dat") | sort -n
```

1. Find all files with a .dat extension recursively from the current directory
2. Count the number of lines each of these files contains
3. Sort the output from step 2. Numerically

You and your friend, having just finished reading Little Women by Louisa May Alcott, are in an argument. Of the four sisters in the book, Jo, Meg, Beth, and Amy, your friend thinks that Jo was the most mentioned. You, however, are certain it was Amy. Luckily, you have a file LittleWomen.txt containing the full text of the novel (shell-lesson-data/writing/data/LittleWomen.txt). Using a for loop, how would you tabulate the number of times each of the four sisters is mentioned? Copy the script here:

Hint: one solution might employ the commands grep and wc and a |, while another might utilize grep options. There is often more than one way to solve a programming task, so a particular solution is usually chosen based on a combination of yielding the correct result, elegance, readability, and speed.


```
for sis in Jo Meg Beth Amy
do
    echo $sis:
    grep -ow $sis LittleWomen.txt | wc -l
done
```