**Bash Commands**

Group #5: Darla Ward & Jeffrey Coles-Clarke

\*Note: commands are italicized

Create 3 files – one called **PySample.py**, one called **ExtraP.txt**, and a third called **Stuff.py**. Add code to each python program and add some text to txt file. Add the words **“RetailCost”** and **“getName”** in one or more of these files.

* *touch PySample.py*
* *touch ExtraP.txt*
* *touch Stuff.py*

What is the current directory? List the contents of the current directory. List the contents of the current directory with any hidden files. List the files with the permissions displayed.

* Current directory: *pwd*
* Contents of current directory: *ls*
* Contents of current directory with any hidden files: *ls -a*
* Files with permissions displayed: *ls -l*

Display the full contents of each of the files created above. Display only the first 3 lines of **PySample.py** and the last 3 lines of **Stuff.py**. Display the last 3 lines of all files. If you have a file that is large, what options are available to have it appear one screen at a time?

* Display full contents of file: *cat PySample.py, cat ExtraP.txt, cat Stuff.p*y
* First three lines: *head -3 PySample.py*, last three lines: *tail -3 Stuff.py*
* Last three lines of all files: *tail -3 PySample.py Stuff.py ExtraP.txt*
* Have a large file appear one screen at a time: *less ExtraP.txt*, press space to go forward a screen

Create a directory called **PythonCurrent**, one called **PythonDone** and one called **TextFiles**. In the PythonDone directory create 2 other directories called **2022** and **2023**. In the TextFiles directory create 2 other directories called **Python** and **Other**.

* Create three directories: *mkdir PythonCurrent, mkdir PythonDone, mkdir TextFiles*
* Create two directories in PythonDone: *cd PythonDone*, then *mkdir 2022, mkdir 2023*
* Create two directories in TextFiles directory: *cd ..,* then *cd TextFiles*, then *mkdir Python, mkdir Other*

Change the current directory to **PythonDone – notice how the prompt changes to show the current directory**. Use pwd to confirm you are in the PythonDone directory. List the files.

* Change current directory: *cd PythonDone*
* Confirm that you are in PythonDone directory: *pwd*
* List the files: *ls*

Change to the following directories: **PythonCurrent**, **2021**, and **Other**. Prove that you are in the proper directory. Go back to your working directory.

* Change the directories: *cd PythonCurrent*, then *pwd* to insure proper directory, then *cd ..* to return to previous directory, then *cd PythonDone/2022/, pwd* again, *cd ..* twice to return to root directory, then *cd TextFiles/Other/, pw*d again and then *cd ..* twice again.

Move the **Stuff.py** file to the **PythonCurrent** folder and give it the same name. Check and make sure the file has been moved. Cpoy the **ExtraP.txt** file to the **Python** folder in TextFiles.

* Move file into PythonCurrent with the same name: *mv Stuff.py PythonCurrent/Stuff.py*
* Check if file is there:  *ls*
* Copy ExtraP to Python folder: *cp ExtraP.txt TextFiles/Python*

Change to the **Python** folder and display the first 6 lines of the file **ExtraP.txt**. Once complete move back to the main folder (environment).

* Change to the Python folder: *cd TextFiles/Python*
* Display the first 6 lines of file: *head -6 ExtraP.txt*
* *cd ..* twice to return to main folder.

Display the contents of the **ExtraP.txt** file from the Python directory in **PythonDone** directory from the current location – you should be in the working directory.

* Display the contents of the file: *cat TextFiles/Python/ExtraP.txt*

From the working directory, find the file called **Stuff.py** searching and subdirectories.

* Find Stuff.py: *grep -r Stuff.py*

Change the permissions in the PySample.py so that the owner, group, and everyone else has only read and execute permission.

* Change the permissions: *chmod ugo+rx PySample.py*

Find the text **getName** in a file and indicate which file(s) it is located –search all subdirectories. Do the same with the word **RetailCost** – in this case allow the search by ignoring case. Direct the output for one of these to a file called **FindResults.txt**. How could you send both results to the same file without overwriting it?

* Find the text and file its located in: *grep getName -r*
* Find the text and file ignoring case: *grep -i retailcost -r*
* Direct the output to a new file called FindResults: *grep RetailCost -r >FindResults.txt*
* *grep RetailCost -r >>FindResults* and *grep getName PythonCurrent/Stuff.py*
* *>>FindResults.txt* appends the 2 text files to the same file without overwriting it.

Perform one other command that you feel would be useful. Write it down with an explanation indicating what it is doing and why you feel it would be beneficial.

* *Wget* allows you to download multiple files, resume downloads, limit the bandwidth, recursive downloads, download in the background, mirror a website, and more. *Wget* can work in the background, while the user is not logged on. *Wget* would be beneficial, as it lets the user download beneficial programs or information that is needed.