Write the command(s) to complete each of the following in a document.

**Project 3 – Bash**

Group 6

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**Project 3 – Bash – Prepare the following in a document.**

* 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 ExtraP.txt Stuff.py

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- nano PySample.py AND -nano Stuff.py

- (insert python code)

- Ctrl + X to save in nano

- Ctrl + O to exit

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- echo "Test text for ExtraP" >> ExtraP.txt

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* 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.

- pwd

- ls

- ls -la

- ls -l

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* 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?

- cat PySample.py Stuff.py ExtraP.txt

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- head -n 3 PySample.py

- tail -n -3 Stuff.py

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- tail -n -3 PySample.py Stuff.py ExtraP.txt

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- you can use more/less and your filename after. Ex. more/less Stuff.py

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* 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**.

- Mkdir PythonCurrent PythonDone TextFiles

- Cd PythonDone

- mkdir 2022 2023

- Cd ..

- Cd TextFiles

- Mkdir Python Other

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* 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.

- cd ..

- cd PythonDone

- pwd

- ls

Output: 2022/ 2023/

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* Change to the following directories: **PythonCurrent**, **2023**, and **Other**. Prove that you are in the proper directory. Go back to your working directory.

- cd ..

- cd PythonCurrent

- pwd

- cd ../PythonDone/2023

- pwd

- cd ../../TextFiles/Other

- pwd

- cd ../..

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

- mv Stuff.py PythonCurrent

- cd PythonCurrent

- ls

- cd ..

- cp ExtraP.txt TextFiles/Python

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

- cd TextFiles/Python

- head -n 6 ExtraP.txt

- cd ../..

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* 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.
* cat TextFiles/Python/ExtraP.txt

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

- find . -name Stuff.py

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

- chmod 555 PySample.py / chmod u+rx,g+rx,o+rx PySample.py



-I tried this but I could not get the executable permission to stick no matter what. Apparently it’s due to how windows handles .exe files

* 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?

- grep -r "getName"

- grep -i -r "RetailCost"

- grep -r "getName" . > FindResults.txt

- grep -r "getName" . >> FindResults.txt

- grep -i -r "RetailCost" . >> FindResults.txt

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* 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.

- du -sh

(du = Disk Usage)

(-s=summarize total space used by the specific directory)

(-h=makes it readable and more digestible to humans.)

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Here we can see the Sprint Python domain I am in is 61651 bytes, but so we can understand it, the value is converted into a value we are familiar with, turning the result into 61 megabytes.

The “du -sh” command allows the user to see the estimated file space usage. When “-s” is used with “du” it summarizes the total space used by the directory you are currently on. When -h is added to -s, it makes the format presented more readable to humans. This is useful for quickly checking the size of a directory, or specific folder, and making it easy to understand so you can ensure you do not run out of storage. It is also a very helpful tool when trying to identify un-optimized files that are too large for the product.

**Bash Part Evaluation Criteria:**

* + Commands: Use accurate Bash commands with screenshots of the outputs.
  + Formatting: **Organize commands in a well-structured Word document and save it as a PDF before submission.**