Bash Commands

By: Joseph Gallant, Justin Greenslade, and Ashton Dennis

- ## Create 3 files: PySample.py, ExtraP.txt, and Stuff.py

touch PySample.py ExtraP.txt Stuff.py

```
86:3B:8E:0E:FD:80:Bash keyin$ touch PySample.py ExtraP.txt Stuff.py
```

- ## Add code to each Python program

PySample.py

```
Sprint > Bash > 🐍 PySample.py > ...
1    message = "Python is great!"
2
3    print(message)
```

Stuff.Py

```
Sprint > Bash > 🐍 Stuff.py > 🔷 WordGuess
1    def WordGuess(wordGuess, secretWord):
2
3        if wordGuess == secretWord:
4            print("That's right. Congratulations!")
5        else:
6            print("That's not it. Please try again.")
7
8        return wordGuess == secretWord
```

- Add some text to the .txt file, and add the words "RetailCost" and "getName"

```
Sprint > Bash > ☰ ExtraP.txt
  1    TODO
  2    Create a RetailCost function
  3    Add the getName() method to Customer
```

- What is the current directory?

pwd

```
86:3B:8E:0E:FD:80:Bash keyin$ pwd
/Users/keyin/Documents/Projects/Sprint/Bash
```

- List the contents of the current directory

ls

```
86:3B:8E:0E:FD:80:Bash keyin$ ls
Bash Commands.docx      ExtraP.txt            PySample.py            Stuff.py              ~$sh Commands.docx
```

- List the contents of the current directory with any hidden files

ls -a

```
86:3B:8E:0E:FD:80:Bash keyin$ ls —a
.                    Bash Commands.docx      PySample.py            ~$sh Commands.docx
..                   ExtraP.txt              Stuff.py
```

- List the files with the permissions displayed

ls -l

```
86:3B:8E:0E:FD:80:Bash keyin$ ls —l
total 352
-rw-r--r--@ 1 keyin  staff  160068 Oct 21 12:07 Bash Commands.docx
-rw-r--r--@ 1 keyin  staff      70 Oct 21 12:09 ExtraP.txt
-rw-r--r--@ 1 keyin  staff      44 Oct 21 11:52 PySample.py
-rw-r--r--@ 1 keyin  staff     214 Oct 21 11:57 Stuff.py
-rw-r--r--@ 1 keyin  staff     162 Oct 21 12:00 ~$sh Commands.docx
```

- Display the full contents of each of the files created above

cat PySample.py

```
86:3B:8E:0E:FD:80:Bash keyin$ cat PySample.py
message = "Python is great!"

print(message)
```

cat ExtraP.txt

```
86:3B:8E:0E:FD:80:Bash keyin$ cat ExtraP.txt
TODO
Create a RetailCost function
Add the getName() method to Customer
```

cat Stuff.py

```
86:3B:8E:0E:FD:80:Bash keyin$ cat Stuff.py
def WordGuess(wordGuess, secretWord):

    if wordGuess == secretWord:
        print("That's right. Congratulations!")
    else:
        print("That's not it. Please try again.")

    return wordGuess == secretWord
```

- Display only the first 3 lines of PySample.py

head -3 PySample.py

```
86:3B:8E:0E:FD:80:Bash keyin$ head -3 PySample.py
message = "Python is great!"

print(message)
```

- Display the last 3 lines of Stuff.py

tail -3 Stuff.py

```
86:3B:8E:0E:FD:80:Bash keyin$ tail -3 Stuff.py
        print("That's not it. Please try again.")

    return wordGuess == secretWord
```

- Display the last 3 lines of all files

tail -3 *

```
86:3B:8E:0E:FD:80:Bash keyin$ tail -3 *
==> ExtraP.txt <==
TODO
Create a RetailCost function
Add the getName() method to Customer
==> PySample.py <==
message = "Python is great!"

print(message)
==> Stuff.py <==
        print("That's not it. Please try again.")

    return wordGuess == secretWord
```

- Options available to display the content of large files

less ExtraP.txt <u>or</u> **cat ExtraP.txt l less**

```
86:3B:8E:0E:FD:80:Bash keyin$ less ExtraP.txt
```

```
86:3B:8E:0E:FD:80:Bash keyin$ cat ExtraP.txt | less
```

```
TODO
Create a RetailCost function
Add the getName() method to Customer
ExtraP.txt (END)
```

- Create a directory called:

PythonCurrent

mkdir PythonCurrent

```
86:3B:8E:0E:FD:80:Bash keyin$ mkdir PythonCurrent
```

- PythonDone

mkdir PythonDone

```
86:3B:8E:0E:FD:80:Bash keyin$ mkdir PythonDone
```

- TextFiles

mkdir TextFiles

```
86:3B:8E:0E:FD:80:Bash keyin$ mkdir TextFiles
```

- In the PythonDone directory, create 2 other directories called 2022 and 2023

mkdir 2022 2023

```
86:3B:8E:0E:FD:80:PythonDone keyin$ mkdir 2022 2023
```

- In the TextFiles directory, create 2 other directories called Python and Other

mkdir Python Other

```
86:3B:8E:0E:FD:80:TextFiles keyin$ mkdir Python Other
```

- Change the current directory to PythonDone

cd ../PythonDone

```
● keyin@MacBookPro TextFiles % cd ../PythonDone
```

- Use pwd to confirm you are in the PythonDone directory.

pwd

```
● keyin@MacBookPro PythonDone % pwd
  /Users/keyin/Desktop/SPRINT/bash_files/PythonDone
```

- List the files**.**

ls -l

```
● keyin@MacBookPro PythonDone % ls -l
  total 0
  drwxr-xr-x@ 2 keyin  staff   64 Oct 21 14:54 2022
  drwxr-xr-x@ 2 keyin  staff   64 Oct 21 14:54 2023
```

- Change to the following directories: PythonCurrent, 2023, and Other.
  Prove that you are in the proper directory.

PythonCurrent

cd ../PythonCurrent

pwd

```
● keyin@MacBookPro PythonDone % cd ../PythonCurrent
● keyin@MacBookPro PythonCurrent % pwd
  /Users/keyin/Desktop/SPRINT/bash_files/PythonCurrent
```

2023

cd ../PythonDone/2023

pwd

```
● keyin@MacBookPro PythonCurrent % cd ../PythonDone/2023
● keyin@MacBookPro 2023 % pwd
  /Users/keyin/Desktop/SPRINT/bash_files/PythonDone/2023
```

Other

cd ../../TextFiles/Other

pwd

```
● keyin@MacBookPro 2023 % cd ../../TextFiles/Other
● keyin@MacBookPro Other % pwd
  /Users/keyin/Desktop/SPRINT/bash_files/TextFiles/Other
```

- Go back to your working directory.

cd ../../

```
● keyin@MacBookPro Other % cd ../../
○ keyin@MacBookPro bash_files % ▮
```

- Move the Stuff.py file to the PythonCurrent folder and give it the same name. Check and make sure the file has been moved.

mv Stuff.py PythonCurrent/

ls PythonCurrent

```
● keyin@MacBookPro bash_files % mv Stuff.py PythonCurrent/
● keyin@MacBookPro bash_files % ls PythonCurrent
  Stuff.py
```

- Copy the ExtraP.txt file to the Python folder in TextFiles.

cp ExtraP.txt TextFiles/Python/

```
keyin@MacBookPro bash_files % cp ExtraP.txt TextFiles/Python/
```

- Change to the Python folder and display the first 6 lines of the file ExtraP.txt.

cd TextFiles/Python

head -n 6 ExtraP.txt

```
keyin@MacBookPro bash_files % cd TextFiles/Python
keyin@MacBookPro Python % head -n 6 ExtraP.txt
TODO
Create a RetailCost function
Add the getName() method to Customer
```

- Once complete move back to the main folder.

cd ../../

```
keyin@MacBookPro Python % cd ../../
keyin@MacBookPro bash_files %
```

- Display the contents of the ExtraP.txt file from the Python directory in TextFiles directory from the current location – you should be in the working directory. (changed due to there being a supposed error in the prompt)

cat TextFiles/Python/ExtraP.txt

```
$ cat TextFiles/Python/ExtraP.txt
TODO
Create a RetailCost function
Add the getName() method to Customer
```

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

find . -type f -name "Stuff.py"

```
$ find . -type f -name "Stuff.py"
./PythonCurrent/Stuff.py
```

- 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 555 PySample.py
```

- Find the text getName in a file and indicate which file(s) it is located – search all subdirectories.

grep -r getName .

```
$ grep -r getName .
./ExtraP.txt:Add the getName() method to Customer
./TextFiles/Python/ExtraP.txt:Add the getName() method to Customer
```

- Do the same with the word RetailCost – in this case allow the search by ignoring case

grep -ir RetailCost .

```
$ grep -ir RetailCost .
./ExtraP.txt:Create a RetailCost function
./TextFiles/Python/ExtraP.txt:Create a RetailCost function
```

- Direct the output for one of these to a file called FindResults.txt.

grep -r getName . > FindResults.txt

```
$ grep -r getName . > FindResults.txt
grep: input file './FindResults.txt' is also the output
```

- How could you send both results to the same file without overwriting it?

grep -ir RetailCost . >> FindResults.txt

```
$ grep -ir RetailCost . >> FindResults.txt
grep: input file './FindResults.txt' is also the output
```

- 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.

mv FindResults.txt TextFiles/Other

```
$ mv FindResults.txt TextFiles/Other
```

Given that there is a folder for miscellaneous text files, putting the newly created FindResults.txt into said folder seems useful