Bash and GitHub
Due Date: Friday 2/3 @ 11:59 PM

Note on Absolute vs Relative File Paths

Absolute File Paths: The entire path of a file or folder starting with "/" or "/mnt/c/"

- Mac example: /Users/wadeb/Documents/QBIO490/course_description.pdf ●

PC Example: /mnt/c/Users/wadeb/Documents/QBIO490/course_calendar.pdf

Relative File Paths: A shortened file path that takes your current location into consideration.

- . represents your current directory, .. represents the previous directory (one above) ●

In /Documents folder…

./QBIO490/ = ../Documents/QBIO490/ = /mnt/c/Users/wadeb/Documents/QBIO490/

Answer the following questions about Bash:

- Type out definitions for the following commands and shortcuts in your own words. Refer to the slides for definitions of commands, and use google to look up the definitions of any unknown shortcuts.

a. pwd

- **Shows the absolute path.**

b. mkdir

- **Creates directories (folders).**

c. cd <dir>

- **Goes into "<dir>". Goes into a directory (folder).**

d. cd ..

- **Exits directory (folder).**

e. ls

- **Lists other directories in the current directory.**

f. rm and the -r flag

- **rm -r <dir> to remove a directory and everything in it. The "-r" flag shows recursiveness in the removal function. Without "-r", you can't delete everything in the directory.**

g. cat

- **To catenate or read files. Reads and prints the file sequentially.**

h. head

- **Head is used to view the first 10 characters of a file.**

i. tail

- **Tail is used to view the last 10 characters of a file.**

j. scp

- **Secure copy. Lets you copy and paste files and directories.**

k. nano (including Ctrl+o and Ctrl+x)

- **Nano <filename> lets you create a file. Ctrl+o saves file. Ctrl+x to close buffer**

and exit from nano.

l. --help

- **Displays a (how to) usage message and exits.**

m. TAB

- **Shifts between different options based on what you have typed.**

n. Ctrl+a

- **Moves cursor back to the beginning of a line.**

o. Ctrl+e

- **Moves cursor to the end of a line.**

p. Ctrl+r

- **Similar to command+f or command+g in browsers and on other applications. Searches for a string.**

q. Ctrl+k

- **Exits out of search.**

r. Ctrl+u

- **Deletes/clears an entire line.**

s. Ctrl+l

- **Creates more space in the terminal window. Make the line go down to the next page. Like command+enter in docs.**

● What command would you use to navigate to your Desktop from /Users/ using an absolute path? Relative path?

- **Absolute: /Users/<username>/Desktop or ~/Desktop.**
- **Relative: ./Desktop (because terminal starts in the <username> directory).**

● How would you copy /Desktop/Example Folder/ with multiple documents inside to /Documents/?

- **scp -r ~/Desktop/Example Folder/ ~/Documents/**

● If you didn't know which folder you were in, how would you navigate back to /Documents/?

- **You can just use "cd ~/Documents/"**
- **Even if you're in other directories it still works. If you want to know what folders you are in, use "pwd" to see the absolute path. Then, use "cd .." to go back to each directory one by one. If you**

want to instantly go to /Documents/ use "cd ~/Documents/"

Fill in the blank:

- To push your local changes to GitHub, use the following sequence of commands:
    1. **"git status"** to view any unsaved changes.
    2. **"git add -A"** to save all files, or **"git add** to save a specific file/folder.
    3. **"git commit"** to commit files for saving. Use '-m' to include a message.
    4. **"git push --all"** to push your changes to GitHub.

Do it yourself!

Use commands in Bash to create a folder *week4_hw* in your local qbio_490_name repository

Save your literature presentation slides to your computer and then use Bash to move them into *week4_hw*

Use GitHub to stage, commit, and upload your new folder and presentation slides into your personal GitHub repo.

Turn in your answers to this document and attach a link to your personal GitHub repo on BlackBoard for full credit