

Bash and GitHub
Due Date: Thursday 9/19 @ 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` give current directory
 - b. `mkdir` make a folder in the current directory
 - c. `cd <dir>` change working directory to a folder located at `<dir>`
 - d. `cd ..` change the current directory to the previous directory
 - e. `ls` list out the contents of the current working directory
 - f. `rm` and the `-r` flag remove the entire folder/directory
 - g. `cat` read file (like `open(path, r)` in python)
 - h. `head` give the first 10 lines of the file
 - i. `tail` give the last 10 lines of the file
 - j. `scp` securely copy a file/directory
 - k. `nano` (including `Ctrl+o` and `Ctrl+x`) opens the nano file editor, saves and exits file
 - l. `--help` argument to usually print out a list of all the commands and their respective arguments
 - m. `TAB` auto-completes potential commands/arguments/files or shows a list of files in current directory as potential arguments
 - n. `Ctrl+a` seek the beginning of the line
 - o. `Ctrl+e` seek the end of the line
 - p. `Ctrl+r` Looks backward in history
 - q. `Ctrl+k` delete characters from cursor to line end
 - r. `Ctrl+u` cut all characters of line before cursor
 - s. `Ctrl+l` clear terminal view
- What command would you use to navigate to your Desktop from `/Users/` using an absolute path? Relative path? Absolute Path: `cd /Users/joshua/Desktop`
Relative Path: `cd joshua/Desktop`
- How would you copy `/Desktop/Example Folder/` with multiple documents inside to `/Documents/`?
`scp -r /Users/joshua/Desktop/Example Folder /Users/joshua/Documents`

- If you didn't know which folder you were in, how would you navigate back to /Documents/? `cd /Users/joshua/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 <file(s)>` to save all files, or to save a specific file/folder.
 3. `git commit -m <msg>` to commit files for saving. Use '-m' to include a message.
 4. `git push` to push your changes to GitHub.

Do it yourself!

- ☐ Use commands in Bash to add the completed homework file to your week3_bash_github folder in your local qbio_490_name repository
- ☐ Use GitHub to stage, commit, and upload your completed Bash and Github HW into your personal GitHub repo.

Turn in your answers for this assignment by attaching a link to your personal GitHub repo on Brightspace for full credit