

## **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 print working directory, the folder where the current location is
  - b. mkdir make directory, which creates a folder
  - c. cd <dir> change directory - moves from the current location to a different directory
  - d. cd .. moves current location up one level
  - e. ls lists the files/folders in the current director
  - f. rm and the -r flag remove (delete) the file or directory; the -r flag makes it remove everything in the directory recursively (for folders)
  - g. cat prints out the contents of a text file and can concatenate (join) files and print them together
  - h. head prints the first 10 lines of a file
  - i. tail prints the last 10 lines of a file
  - j. scp secure copy - copies a file to another location; add -r to copy a directory
  - k. nano (including Ctrl+o and Ctrl+x) - text editor in terminal best used for small changes; ctrl o writes changes to the file, and ctrl x exits nano.
  - l. --help provides information about the command used
  - m. TAB runs through possible command completion options
  - n. Ctrl+a goes to beginning of command line
  - o. Ctrl+e goes to the end of command line
  - p. Ctrl+r search backwards and moving up through history
  - q. Ctrl+k clear all after cursor
  - r. Ctrl+u clear all before cursor
  - s. Ctrl+l clear the screen

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

`cd Users/rsz/desktop` or `cd rsz/desktop`

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

`scp Desktop/"Example Folder" -r Documents`

- If you didn't know which folder you were in, how would you navigate back to /Documents/?  
`Pwd`, `cd ..` until you get to `Users/rsz/`, and `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 .** to save all files, or to save a specific file/folder.
  3. **git commit** 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**