

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, tells you your current directory**
 - b. `mkdir` **make directory**
 - c. `cd <dir>` **change into another directory**
 - d. `cd ..` **move to the previous directory**
 - e. `ls` **list out all files in current directory**
 - f. `rm` and the `-r` flag **remove, use ‘-r’ when deleting directories**
 - g. `cat` **displays the contents of a file to the terminal**
 - h. `head` **display the first 10 lines of a file**
 - i. `tail` **display the last 10 lines of a file**
 - j. `scp` **copies one directory or file to another location**
 - k. `nano` (including `Ctrl+o` and `Ctrl+x`) **ctrl+o = save; ctrl+x = exit**
 - l. `--help` **display help information**
 - m. `TAB` **auto-completes file and directory names when typing in the terminal**
 - n. `Ctrl+a` **move cursor to the beginning of the line**
 - o. `Ctrl+e` **move cursor to the end of the line**
 - p. `Ctrl+r` **searches through the command history for a previously used command**
 - q. `Ctrl+k` **cuts the text from the cursor to the end of the line**
 - r. `Ctrl+u` **pastes text that was previously cut using Ctrl+k.**
 - s. `Ctrl+l` **clear the terminal**
- What command would you use to navigate to your Desktop from `/Users/` using an absolute path? Relative path?
Absolute: `cd /Users/shichong/Desktop`
Relative: `cd shichong/Desktop`
- How would you copy `/Desktop/Example Folder/` with multiple documents inside to `/Documents/`?
`cp -r /Desktop/Example\ Folder/ ~/Documents/`

- If you didn't know which folder you were in, how would you navigate back to /Documents/?
Use `pwd` to get current directory, then `cd` to `~/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