

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**) Prints which directory you're in.
 - b. `mkdir` (**make directory**) Creates a new directory.
 - c. `cd <dir>` (**change directory**) Move into the specified directory. Absolute or relative paths are accepted.
 - d. `cd ..` Moves into the parent directory.
 - e. `ls` (**list**) Displays the contents of the current directory.
 - f. `rm` and the `-r` flag (**remove, recursive**) Deletes files or directories. `-r` makes it recursive, allowing for the deletion of directories and their contents.
 - g. `cat` (**concatenate**) Concatenates files and displays their contents in the terminal.
 - h. `head` Displays the first few lines of a file.
 - i. `tail` Displays the last few lines of a file.
 - j. `scp` (**secure copy**) Copies a directory or file to another location. `-r` (recursive) for directories.
 - k. `nano` A terminal text editor
 - `Ctrl+O`: Saves changes to disk (“Save as...”)
 - `Ctrl+X`: Exit from nano
 - l. `--help` Displays help information, instructions, and options.
 - m. `TAB` Indent marked region
 - n. `Ctrl+a` Moves to start of line
 - o. `Ctrl+e` Moves to end of line
 - p. `Ctrl+r` Insert a file into the current file
 - q. `Ctrl+k` Cuts current line (into cutbuffer)
 - r. `Ctrl+u` Pastes content of cutbuffer
 - s. `Ctrl+l` Refreshes the screen

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

Absolute: `cd /Users/sophieshen/Desktop`

Relative: `cd sophieshen/Desktop`

- 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/?

`cd /Users/sophieshen/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 -m "[informative message about file]"` 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