

Command Line

Lab 2

The labs, for this course, are designed to be completed on your own at home or in the 3rd floor Trottier labs. These labs are not graded. You do not hand in these labs. If you prefer to work on a lab in a supervised setting, check the TA Information schedule for the Lab TA period(s). You will find this schedule in our MyCourses page under Content/Course Information. The supervised labs are not teaching environments. The Lab TA will simply be present to answer questions and provide support.

This lab is about the Linux command line.

PART ONE: Archiving Files

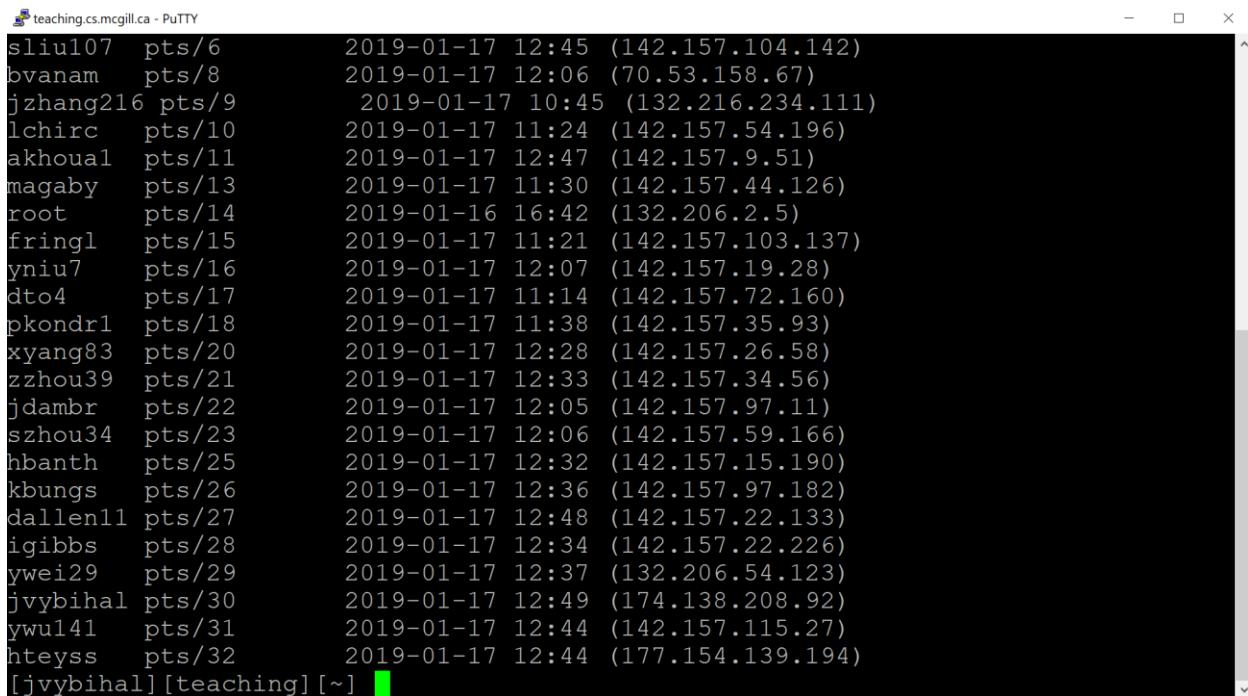
Try this experiment:

- (A) Login to `mimi.cs.mcgill.ca`
- (B) In your home directory `mkdir` a directory called `lab2`
- (C) Then `cd` into that directory and `mkdir` a subdirectory called `archive`
- (D) Using `pico` create a random letter called `letter1.txt`
- (E) Using `vim` create a second random letter called `letter2.txt`
- (F) Using `touch` create a third file called `letter3.txt`
- (G) Check your files out by typing `ls` and `cat`
- (H) Now, using the notes from class, TAR your three text files into the directory `archive`. You will need to write something like this: `tar -cvf archive/myletters.tar *.txt`
- (I) Using `ls`, look into the directory `archive` to see if your `myletters.tar` file exists. If it does, then you did it correctly.
- (J) Now, `cd` into the `archive` directory and extract the files. Check the class notes on how to do this. The files you archived should be extracted within the same directory (the `archive` directory). Once extracted they should appear within the directory `archive`.
- (K) If something unexpected occurred while archiving / extracting, discuss this with your classmates or the TA.

PART TWO: Interacting with other users

There are many ways to interact with users of a server. Let us look at one interesting way:

- (A) Login to mimi.cs.mcgill.ca
- (B) Find out the users currently logged in by typing the command: `who`
- (C) Use the `grep` command to find someone in the list of logged in users. You will need to type something like this: `who | grep 'abc'`
Where 'abc' is the string or substring of the username you want to find.
- (D) Notice that the command `who` displays something like this:



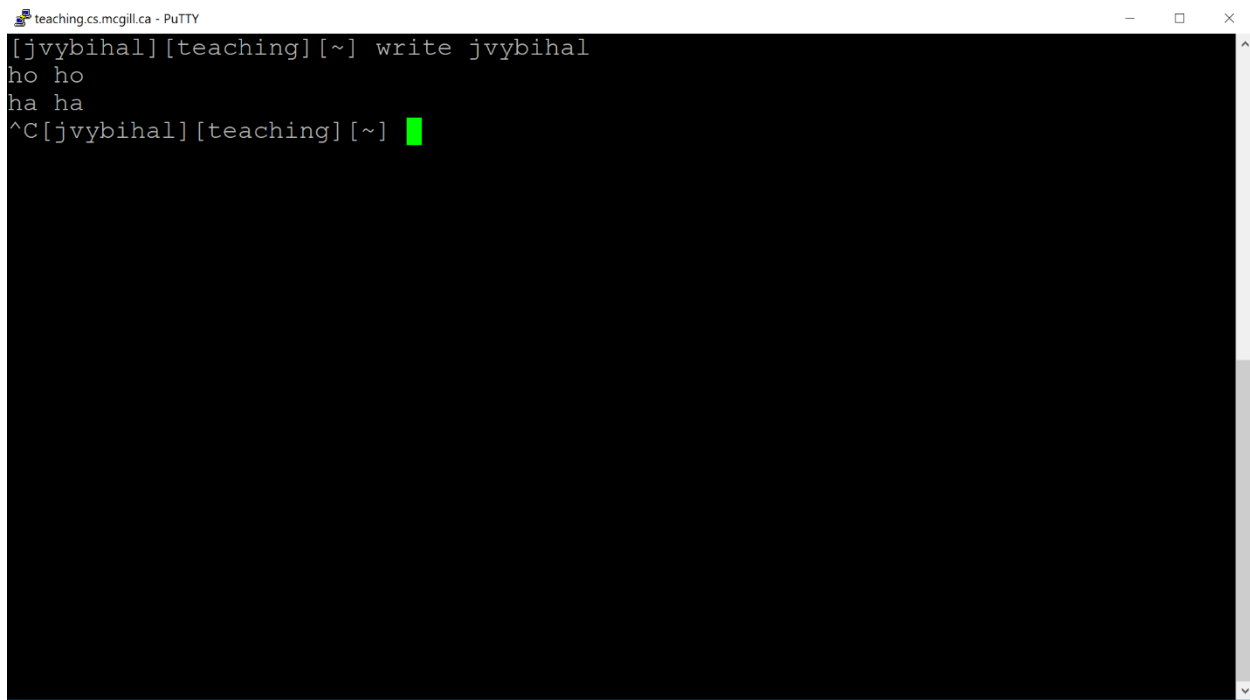
```
teaching.cs.mcgill.ca - PuTTY
sliul07 pts/6      2019-01-17 12:45 (142.157.104.142)
bvanam  pts/8      2019-01-17 12:06 (70.53.158.67)
jzhang216 pts/9      2019-01-17 10:45 (132.216.234.111)
lchirc  pts/10     2019-01-17 11:24 (142.157.54.196)
akhoul1 pts/11     2019-01-17 12:47 (142.157.9.51)
magaby  pts/13     2019-01-17 11:30 (142.157.44.126)
root    pts/14     2019-01-16 16:42 (132.206.2.5)
fringl  pts/15     2019-01-17 11:21 (142.157.103.137)
yniu7   pts/16     2019-01-17 12:07 (142.157.19.28)
dto4    pts/17     2019-01-17 11:14 (142.157.72.160)
pkondrl pts/18     2019-01-17 11:38 (142.157.35.93)
xyang83 pts/20     2019-01-17 12:28 (142.157.26.58)
zzhou39 pts/21     2019-01-17 12:33 (142.157.34.56)
jdambr  pts/22     2019-01-17 12:05 (142.157.97.11)
szhou34 pts/23     2019-01-17 12:06 (142.157.59.166)
hbanth  pts/25     2019-01-17 12:32 (142.157.15.190)
kbungs  pts/26     2019-01-17 12:36 (142.157.97.182)
dallen11 pts/27     2019-01-17 12:48 (142.157.22.133)
igibbs  pts/28     2019-01-17 12:34 (142.157.22.226)
ywei29  pts/29     2019-01-17 12:37 (132.206.54.123)
jvybihal pts/30     2019-01-17 12:49 (174.138.208.92)
ywul41  pts/31     2019-01-17 12:44 (142.157.115.27)
hteyss  pts/32     2019-01-17 12:44 (177.154.139.194)
[jvybihal] [teaching] [~]
```

A fun activity it to communicate with other students who are currently logged in. One way to do that is to use the `write` command. You can `man write` to find more information. The basic syntax is the following:

```
write USERNAME
```

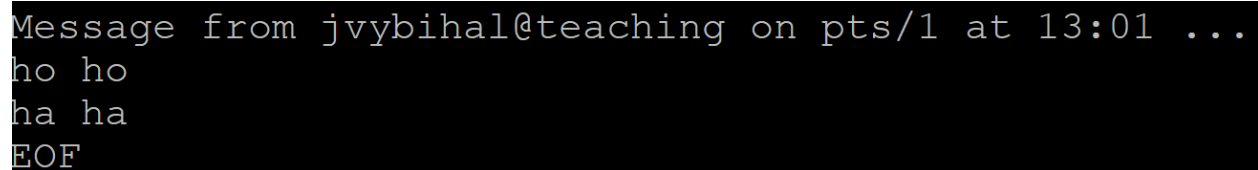
Where USERNAME is the user name that is displayed in the first column of the `who` output. Then you can type sentences to that user, press enter, and type more. All that will be displayed on your friend's screen. To end writing to your friend, press `control-c`.

For example, I logged in twice and spoke to myself:

A screenshot of a PuTTY terminal window titled 'teaching.cs.mcgill.ca - PuTTY'. The terminal shows a user at the 'jvybihal' prompt on the 'teaching' host. The user enters the command 'write jvybihal', which results in the output 'ho ho' followed by 'ha ha' on the next line. The prompt returns to '^C[jvybihal][teaching][~]' with a green cursor. The terminal window has standard window controls (minimize, maximize, close) in the top right corner.

```
teaching.cs.mcgill.ca - PuTTY
[jvybihal][teaching][~] write jvybihal
ho ho
ha ha
^C[jvybihal][teaching][~]
```

On the other account I saw:

A screenshot of a terminal window showing a message received from 'jvybihal@teaching' on 'pts/1' at '13:01'. The message content is 'ho ho' followed by 'ha ha' on the next line, and ends with 'EOF'.

```
Message from jvybihal@teaching on pts/1 at 13:01 ...
ho ho
ha ha
EOF
```

To block people from doing this, use the command: `mesg n`

You can let people write to you again with this command: `mesg y`

The meaning of the command is obvious. Turn messaging on NO. Turn messaging on YES. Have fun annoying people.

You have completed the lab.