

## Practice 3

If you practice something, it will become easier to do!

### Sample 1

In the example below, you can practice receiving command-line input. Don't forget to `chmod +x foo.sh` (assuming you have named the script `foo.sh`).

```
#!/bin/bash

echo "This demonstrates comand line input"
echo "Usage: ./sample3 foo bar hello"

echo "The value of zero arg is $0"
echo "The value of first arg is $1"
echo "The value of second is $2"
echo "The value of third is $3"
echo "The value of all is $*"

#hmmm, do you have to pass in a fourth value here?
four=${4:-carlos}
echo "The value of fourth is $four"

#how to set a variable
value="nacho libre"
echo "The value is ${value}"

#this line demonstrates how to ask the user for a value
# the results in stored in the variable `age`
read -p "How old are you?" age
echo "Your age is ${age}"
```

In the above example, here are some items that you should pay attention to:

- Did you notice that anytime I wanted the contents of the variable I used `${variablename}`.
- When you run the script, did you note what the command-line argument zero was?
- Try changing your double quotes to single quotes on the last two lines. Can you see what the difference is?

### Sample 2

The following is a very simple script that executes a command over ssh:

```
#!/bin/bash

echo "This is my first script"; ssh jfrancom@vm.cs.utahtech.edu "/qemu/bin/citv showvm | grep 3110";
exit 0
```

Don't forget to make it executable. Note that you would substitute your username instead of `jfrancom`. To make it run smoother, it would be nice to copy your ssh keys to the remote machine (named `vm`). This would *ONLY* display something if you had a virtual machine created for your 3110 course.

Things to pay attention to:

- When executing a command over ssh, you enclose the command in quotes. You should also use the full path to the command like `/qemu/bin/citv` or `/usr/sbin/ip` or `/usr/bin/hostname`.
- What if you moved the quotes so that the line was like this:

```
echo "This is my first script"; ssh jfrancom@vm.cs.utahtech.edu "/qemu/bin/citv showvm" | grep 4100;
exit 0
```

See if you can write a simple script (or modify the one above) to ssh to a remote host and execute a command. Perhaps it's as simple as `ls` (of course you would use the full path `/usr/bin/ls`)

Run the sample and redirect the standard output to a file.

