

COMP-2560 Labs Winter 2025

Lab#01: Introduction to Unix Shell

Part 1: Follow the steps below to create a simple bash shell script.

1. Create a file named `myScript`, and type in the following line:

```
#!/bin/bash

echo Welcome to shell scripting.
myfirstvar=hello
echo $myfirstvar
myfirstvar="$myfirstvar there"
echo $myfirstvar
myfirstvar=' $myfirstvar there '
echo $myfirstvar

echo Today is `date`
echo Today is '`date`'
```

2. Modify this file's protection mode by using the `chmod +x` command (use `man`/online help to learn about `chmod` command) to make sure the file can be executed by you. Once it is done, run the script and take note of the output.
3. Now add the following lines to the file

```
echo The program name is: $0
echo "The program name is: $0"
echo 'The program name is: $0'

echo The first argument is: $1
echo The fourth argument is: $4
echo All the arguments are: $*
echo The total number of argument is: $#
```

Then, run the script with the arguments shown below and observe the output produced.

```
myScript My name is BigFoot and I live in your head
```

4. Use `man`/online help to get the right format for **date** so that when you type **echo Today is `date +%? %?, %?`** you should get

```
Today is day-name January ##, 2025
```

```
for example: Today is Monday January 20, 2025.
```

Note: You may launch the script with `-xv` options as

```
%bash -xv myScript
```

to get some details of how the script is being executed, and thus help the debugging process.

Part 2:

- Write a bash shell script that will display the total number of files, within a given directory, whose names start with **b** and consist of exactly 5 characters. The name of the directory is given as command line argument at the shell prompt.

A sample run:

```
>testscript /bin/  
4  
>testscript /usr/include/  
1
```

There are 4 matches in the `/bin` directory and 1 in the `/usr/include` directory.

- Modify your script so that the starting letter (**b**) becomes the second parameter passed to the shell script at the shell prompt.

The above sample runs become:

```
>testscript /bin b  
4  
>testscript /bin f  
3
```