

Bash script lab 2

1. Create a script that asks for user name then send a greeting to him.

```
Activities Terminal
smabrouk@localhost:~$
File Edit View Search Terminal Help
Salma >> chmod +x greeting.sh
Salma >> ./greeting.sh
What is your name ?
Salma
Welcome Salma
Salma >>

smabrouk@localhost:~$
File Edit View Search Terminal Help
/usr/bin/bash
ho What is your name ?
ad answer
ho Welcome $answer
```

2. Create a script called s1 that calls another script s2 where:
 - In s1 there is a variable called x, it's value 5

The screenshot shows a terminal window with the following commands and output:

```
Salma >> chmod +x s1.sh
Salma >> chmod +x s2lab.sh
Salma >> ./s1.sh
x=5
Salma >>
```

Below the main terminal window, a new terminal window titled "s1.sh" [New] 3L, 34C written is shown. It contains the following commands and output:

```
#!/bin/bash
export x=5
./s2lab.sh
```

The new terminal window is currently open, showing the prompt and the first line of the script.

- Try to print the value of x in s2 by two different ways.

[illegible]

3. Create a script called mycp where:
 - It copies a file to another

A screenshot of a terminal window with a dark background. The window title is "Terminal" and the user is "smabrouk@localhost". The prompt is "Salma >>". The user has entered the command ". mycp.sh". The terminal output shows a message "Script must have at least 2 arguments", followed by "Salma >> touch file", "Salma >> cat file", and "Salma is here". The prompt "Salma >>" is visible at the bottom. The terminal window is part of a larger desktop environment with a top bar showing "Activities", "Terminal", and the date "Dec 14 19:15".

- It copies multiple files to a directory.

The image shows two terminal windows. The left window shows the execution of a script named `mycp.sh` which copies files `file` and `ff` into a directory `mycpdir`. The right window shows the source code of `mycp.sh`, which uses `if` and `cp` commands to handle multiple file copying.

```

Salma >> mkdir mycpdir
Salma >> cat file
Salma is here
Salma >> cat ff
Salma is here
Salma >> . mycp.sh ff file mycpdir
bash: [-f: command not found...
bash: [: missing `]'
Salma >> ls mycpdir
ff file
Salma >> cd mycpdir
Salma >> cat ff
Salma is here
Salma >>

#!/bin/bash
if [ $# -eq 0 ]
then
    echo Script must have at least 2 arguments
elif [ -f $1 ]
then
    if [ -e $2 ]
    then
        if [ -f $2 ]
        then
            cat $1 >$2
        elif [ -d $2 ]
        then
            cp $1 $2
        fi
    else
        touch $2
        cat $1 > $2
    fi
fi

if [ $# -gt 2 ]
then
    cp $*

```

4. Create a script called `mycd` where:
 - It changed directory to the user home directory, if it is called without arguments.
 - Otherwise, it change directory to the given directory.

The image shows two terminal windows. The left window shows the execution of `mycd.sh` which changes the directory to `/etc`. The right window shows the source code of `mycd.sh`, which uses `cd` to change the directory.

```

Salma >> . mycd.sh
Salma >> . mycd.sh /etc
Salma >>

#!/bin/bash
if [ $# -eq 0 ]
then
    cd
else
    cd $1
fi

```

5. Create a script called `myls` where:
 - It lists the current directory, if it is called without arguments.
 - Otherwise, it lists the given directory.

The image shows two terminal windows. The left window shows the execution of `myls.sh` which lists the contents of the current directory. The right window shows the source code of `myls.sh`, which uses `ls` to list the directory.

```

Salma >> . myls.sh
change.sh      errorfile2    Music         oldpasswd     Templates
comment.sh    ff            mycase.sh     outputfile    test_perm
Desktop        file          mycd.sh       outputfile2   testperm
docs           filename1     mychmod.sh    Pictures      uid.sh
Documents      filename2     mycpdir       Public        Videos
Downloads      greatest.sh   mycp.sh       s1.sh
email.txt      greeting.sh   mycv          s2lab.sh
'-errorfile'   lines.sh     myls.sh       snap
errorfile     mail.sh      myteam        sum.sh

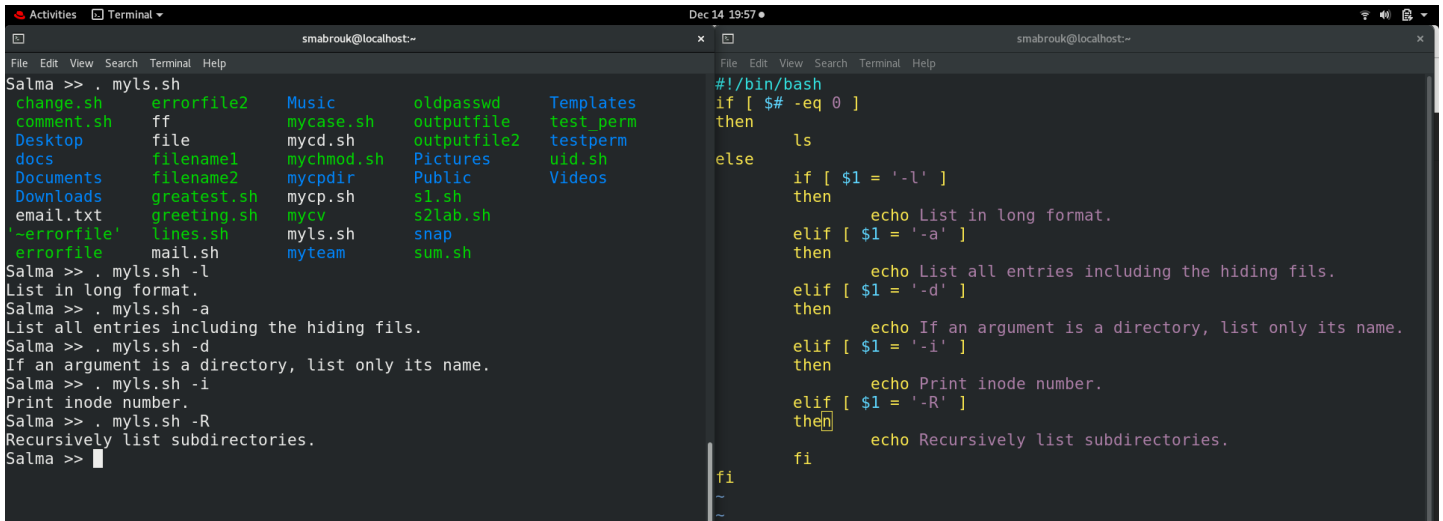
Salma >> . myls.sh ff
Argument must be a directory
Salma >>

#!/bin/bash
if [ $# -eq 0 ]
then
    ls
else
    if [ -d $1 ]
    then
        ls $1
    else
        echo Argument must be a directory
    fi
fi

```

6. Enhance the above script to support the following options individually:

- `-l`: list in long format
- `-a`: list all entries including the hiding files.
- `-d`: if an argument is a directory, list only its name
- `-i`: print inode number
- `-R`: recursively list subdirectories

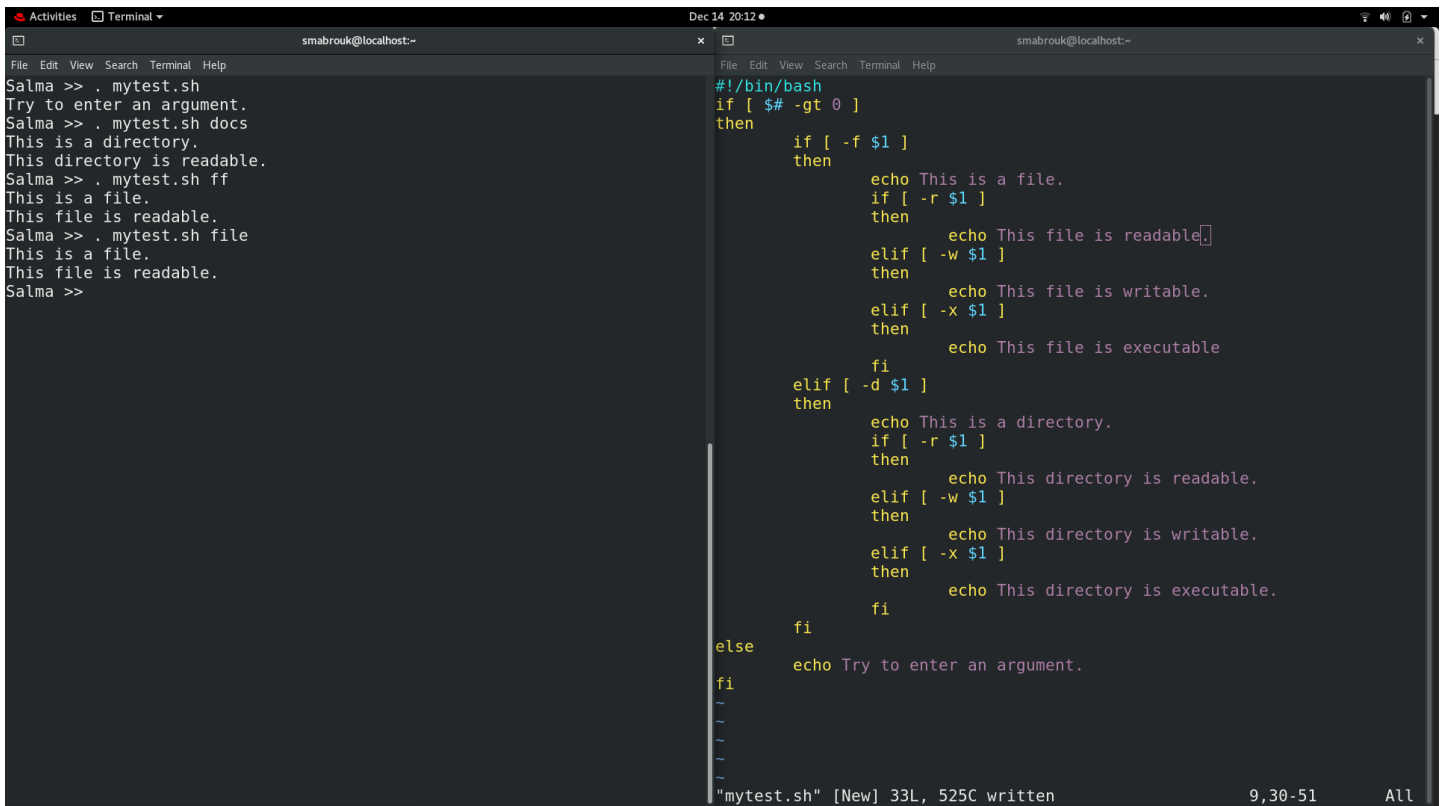


```
Salma >> . myls.sh
change.sh      errorfile2    Music         oldpasswd     Templates
comment.sh     ff            mycase.sh     outputfile    test_perm
Desktop        file          mycd.sh       outputfile2   testperm
docs           filename1     mychmod.sh    Pictures      uid.sh
Documents      filename2     mycpd.sh      Public        Videos
Downloads      greatest.sh  mycv          s2lab.sh
email.txt      greeting.sh   myls.sh       snap
'-errorfile'   lines.sh     mail.sh       myteam        sum.sh
errorfile

Salma >> . myls.sh -l
List in long format.
Salma >> . myls.sh -a
List all entries including the hiding files.
Salma >> . myls.sh -d
If an argument is a directory, list only its name.
Salma >> . myls.sh -i
Print inode number.
Salma >> . myls.sh -R
Recursively list subdirectories.
Salma >>
```

7. Create a script called mytest where:

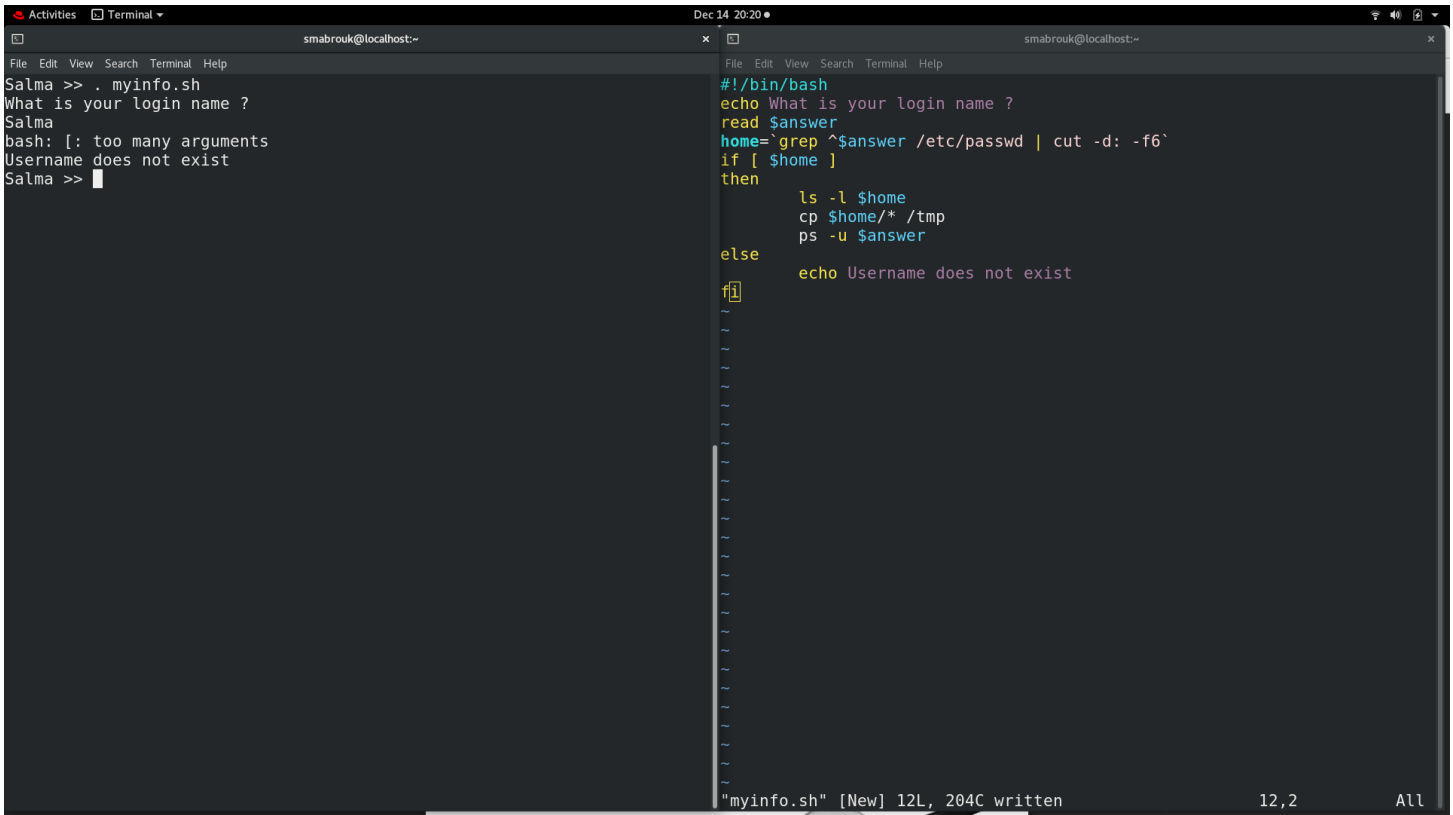
- It check the type of the given argument (file/directory)
- It check the permissions of the given argument (read/write/execute)



```
Salma >> . mytest.sh
Try to enter an argument.
Salma >> . mytest.sh docs
This is a directory.
This directory is readable.
Salma >> . mytest.sh ff
This is a file.
This file is readable.
Salma >> . mytest.sh file
This is a file.
This file is readable.
Salma >>
```

8. Create a script called myinfo where:

- It asks the user about his/her logname.
- It print full info about files and directories in his/her home directory
- Copy his/her files and directories as much as you can in /tmp directory.
- Gets his current processes status.



```
Salma >> . myinfo.sh
What is your login name ?
Salma
bash: [: too many arguments
Username does not exist
Salma >>

#!/bin/bash
echo What is your login name ?
read $answer
home=$(grep ^$answer /etc/passwd | cut -d: -f6`
if [ $home ]
then
    ls -l $home
    cp $home/* /tmp
    ps -u $answer
else
    echo Username does not exist
fi
```

"myinfo.sh" [New] 12L, 204C written 12,2 All