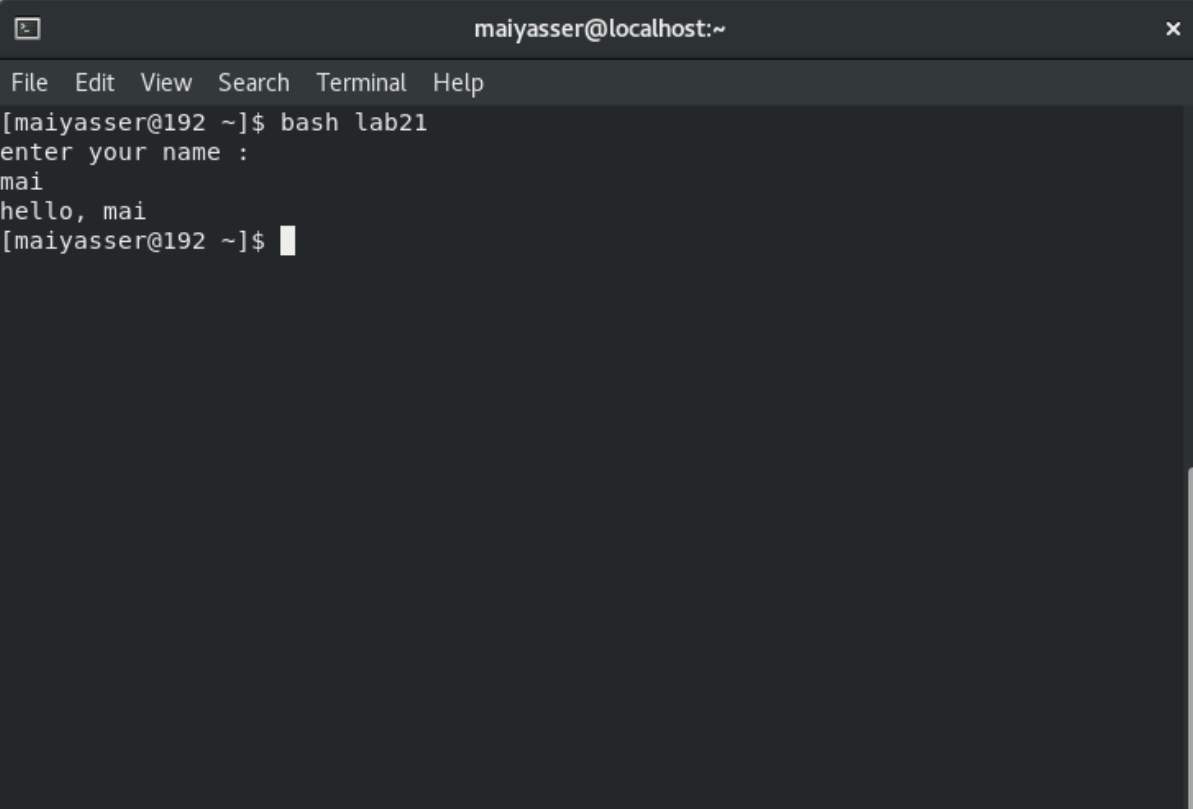


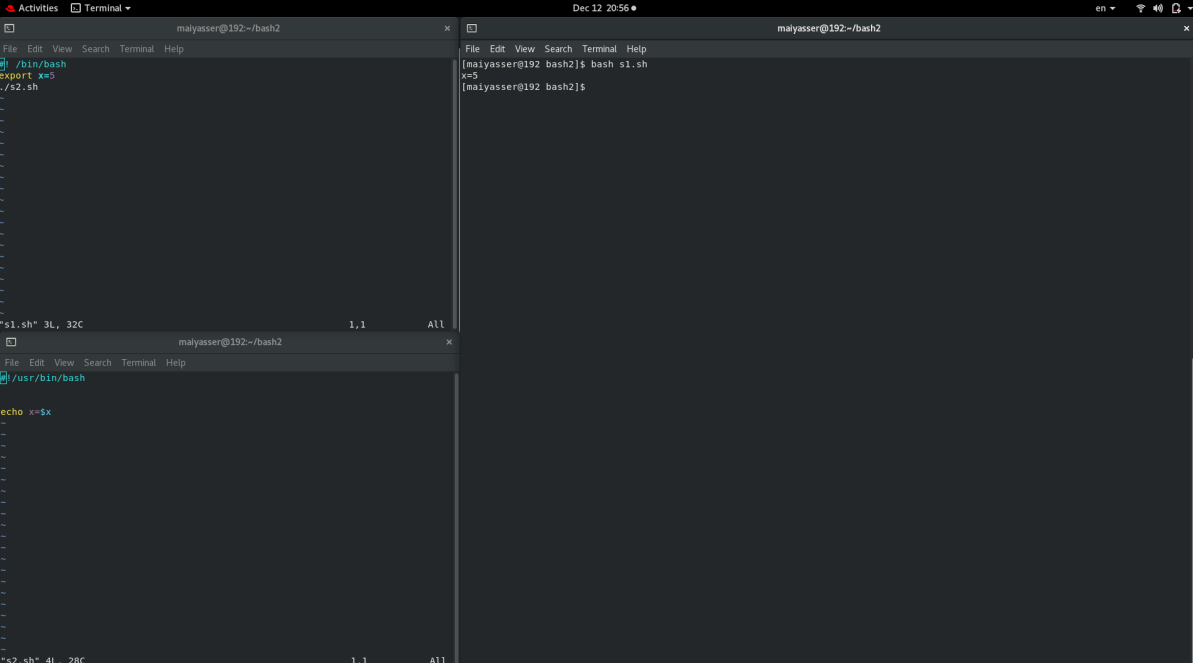
1. Create a script that asks for user name then send a greeting to him.



```
maiyasser@localhost:~
File Edit View Search Terminal Help
[maiyasser@192 ~]$ bash lab21
enter your name :
mai
hello, mai
[maiyasser@192 ~]$
```

2. Create a script called s1lab that calls another script s2 where:

- a. In s1 there is a variable called x, it's value 5
- b. Try to print the value of x in s2 by two different ways.



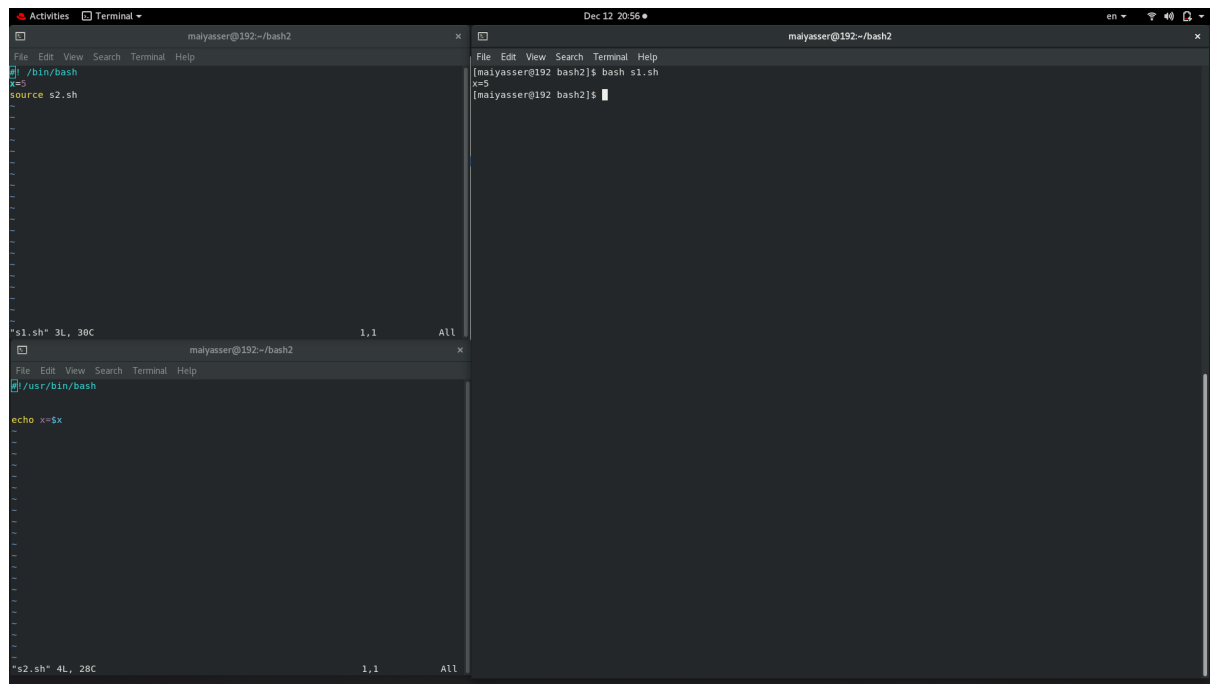
```
maiyasser@192:~/bash2
File Edit View Search Terminal Help
/bin/bash
export x=5
./s2.sh

"s1.sh" 3L, 32C 1,1 All

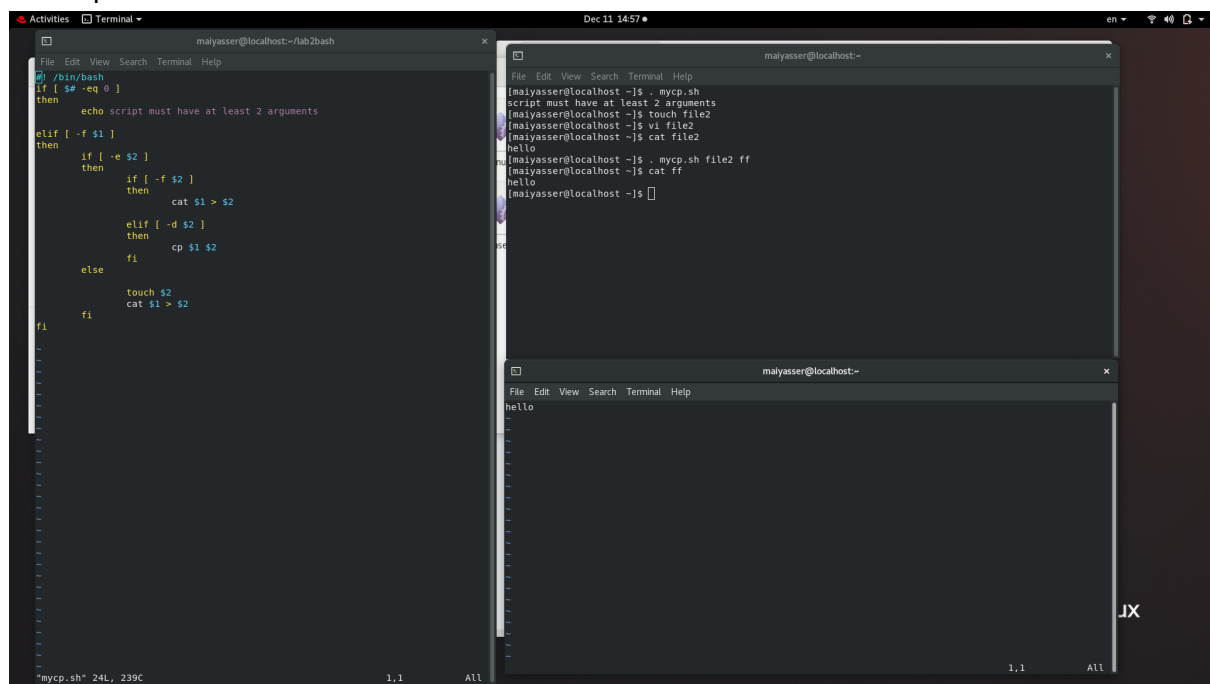
maiyasser@192:~/bash2
File Edit View Search Terminal Help
[maiyasser@192 bash2]$ bash s1.sh
x=5
[maiyasser@192 bash2]$

maiyasser@192:~/bash2
File Edit View Search Terminal Help
/usr/bin/bash
echo x=$x

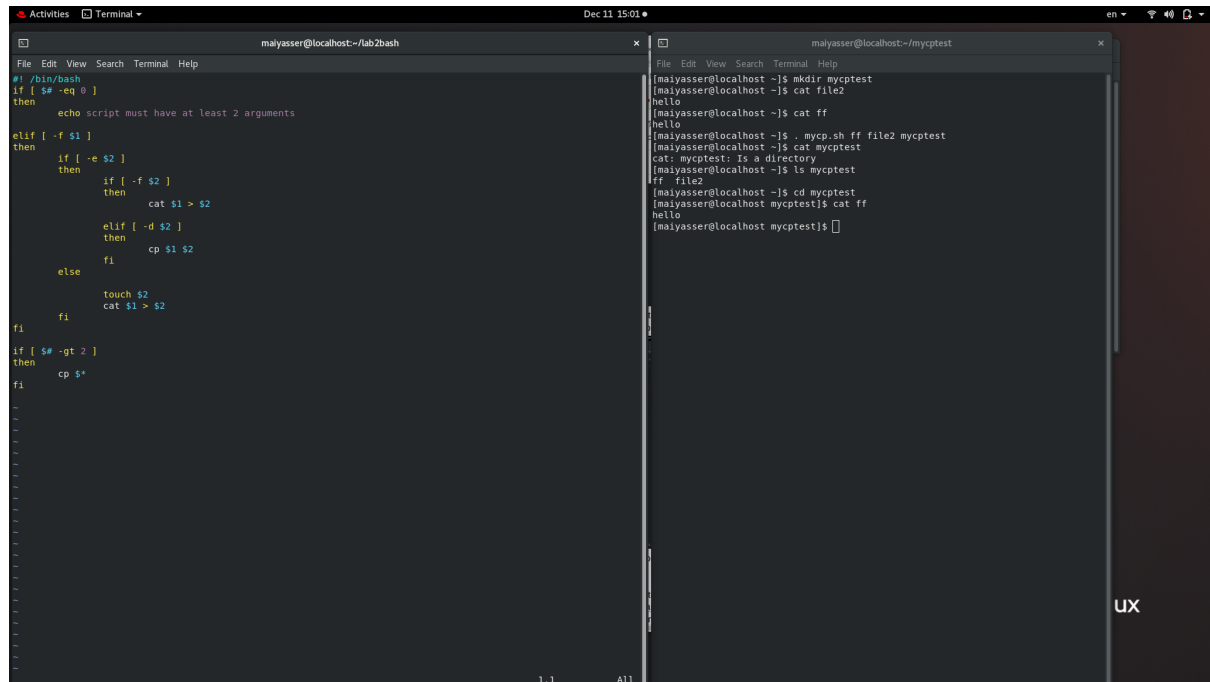
"s2.sh" 4L, 28C 1,1 All
```



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



b. It copies multiple files to a directory.



The screenshot shows two terminal windows. The left window, titled 'maiyaasser@localhost:~/lab2bash', displays a shell script with conditional logic for file operations. The right window, titled 'maiyaasser@localhost:~/mycptest', shows the execution of this script, including directory creation, file copying, and directory changes.

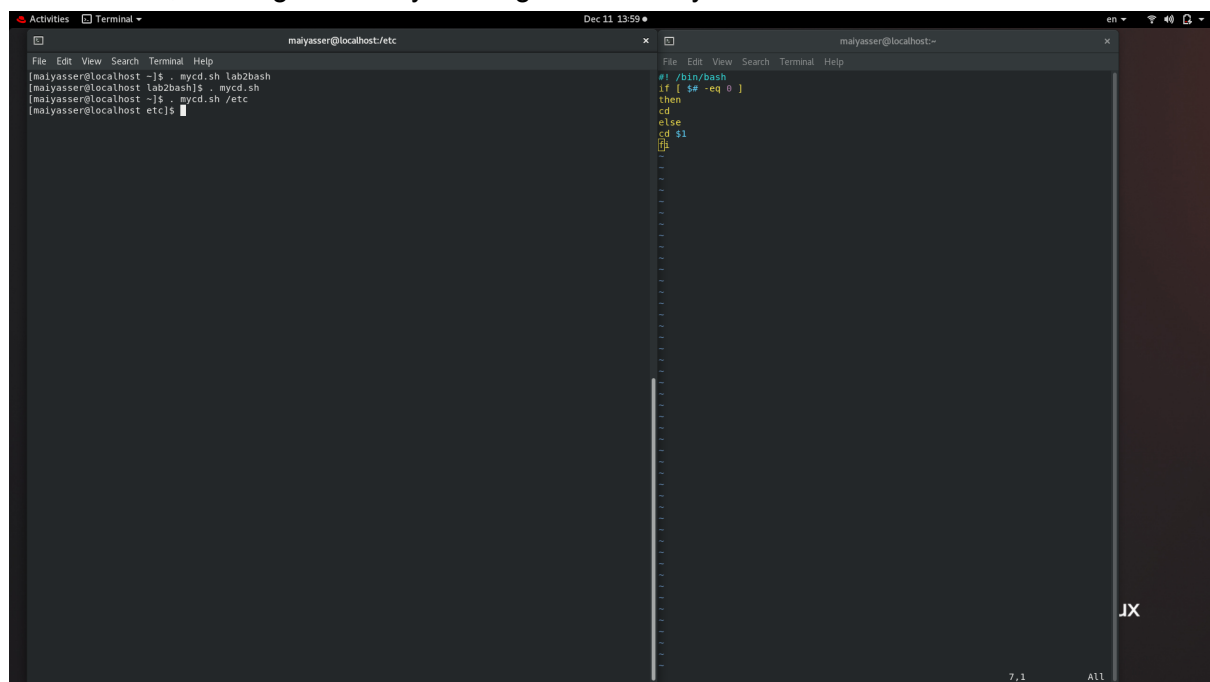
```
maiyaasser@localhost:~/lab2bash
# /bin/bash
if [ $# -eq 0 ]
then
    echo script must have at least 2 arguments
elif [ -f $1 ]
then
    if [ -e $2 ]
    then
        if [ -f $2 ]
        then
            cat $1 > $2
        elif [ -d $2 ]
        then
            cp $1 $2
        else
            touch $2
            cat $1 > $2
        fi
    fi
fi
if [ $# -gt 2 ]
then
    cp $*
fi

maiyaasser@localhost:~/mycptest
[maiyaasser@localhost ~]$ mkdir mycptest
[maiyaasser@localhost ~]$ cat file2
hello
[maiyaasser@localhost ~]$ cat ff
hello
[maiyaasser@localhost ~]$ . mycp.sh ff file2 mycptest
[maiyaasser@localhost ~]$ cat mycptest
cat: mycptest: is a directory
[maiyaasser@localhost ~]$ ls mycptest
ff  file2
[maiyaasser@localhost ~]$ cd mycptest
[maiyaasser@localhost mycptest]$ cat ff
hello
[maiyaasser@localhost mycptest]$
```

4. Create a script called mycd where:

a. It changed directory to the user home directory, if it is called without arguments.

b. Otherwise, it change directory to the given directory.



The screenshot shows two terminal windows. The left window, titled 'maiyaasser@localhost:/etc', shows the execution of a script that changes the directory to '/etc'. The right window, titled 'maiyaasser@localhost:~', shows the execution of a script that changes the directory to '~' (home directory) when no arguments are provided.

```
maiyaasser@localhost:/etc
[maiyaasser@localhost ~]$ . mycd.sh lab2bash
[maiyaasser@localhost lab2bash]$ . mycd.sh
[maiyaasser@localhost ~]$ . mycd.sh /etc
[maiyaasser@localhost etc]$

maiyaasser@localhost:~
# /bin/bash
if [ $# -eq 0 ]
then
    cd
else
    cd $1
fi
```

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

```

File Edit View Search Terminal Help
/bin/bash
if [ $# -eq 0 ]
then
    ls
else
    if [ -d $1 ]
    then
        ls $1
    else
        echo argument must be a directory
    fi
fi

myls.sh 12L, 120C
1,1 All

```

```

File Edit View Search Terminal Help
[maiya@192 ~]$ myls.sh lab2bash
mycd.sh mycp.sh myls myls.sh
[maiya@192 ~]$ myls.sh
bash2 darfst Downloads ff filename2 lab21 lab2 mycp test output result test1
Commands docs email.txt file2 filenames lab2 1.sh lol myteam Pictures Templates Videos
Desktop Documents error filename1 lab2 lab2bash Music oldpasswd Public test
[maiya@192 ~]$ myls.sh ff
[maiya@192 ~]$ myls.sh
argument must be a directory
[maiya@192 ~]$

```

6. Enhance the above script to support the following options individually:
 - a. `-l`: list in long format
 - b. `-a`: list all entries including the hiding files.
 - c. `-d`: if an argument is a directory, list only its name
 - d. `-i`: print inode number
 - e. `-R`: recursively list subdirectories

```

File Edit View Search Terminal Help
/bin/bash
if [ $# -eq 0 ]
then
    ls
else
    if [ $1 = '-l' ]
    then
        echo list in long format
    elif [ $1 = '-a' ]
    then
        echo list all entries including the hiding files
    elif [ $1 = '-d' ]
    then
        echo if an argument is a directory list only its name
    elif [ $1 = '-i' ]
    then
        echo print inode number
    elif [ $1 = '-R' ]
    then
        echo recursively list subdirectories
    fi
fi

myls.sh 12L, 120C
1,1 All

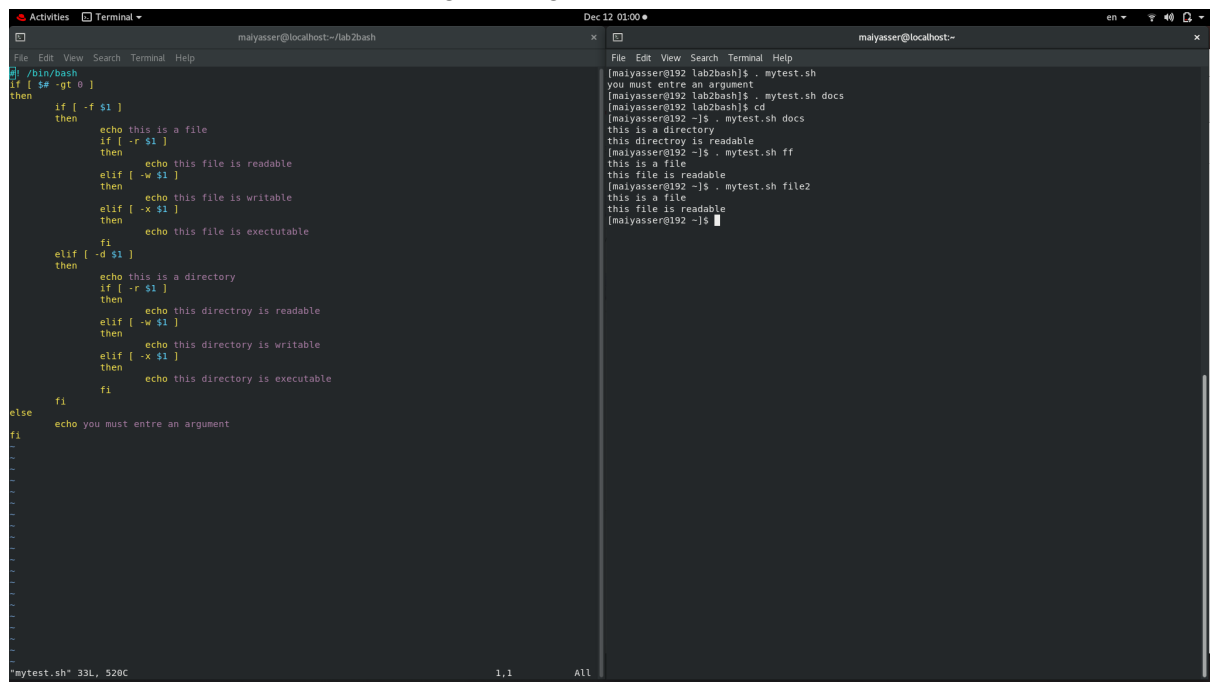
```

```

File Edit View Search Terminal Help
[maiya@192 ~]$ cd lab2bash
[maiya@192 lab2bash]$ . inhmyls.sh
[maiya@192 lab2bash]$ mycd.sh mycp.sh myls myls.sh
[maiya@192 lab2bash]$ . inhmyls.sh -l
list in long format
[maiya@192 lab2bash]$ . inhmyls.sh
[maiya@192 lab2bash]$ . inhmyls.sh -a
list all entries including the hiding files
[maiya@192 lab2bash]$ . inhmyls.sh -d
if an argument is a directory list only its name
[maiya@192 lab2bash]$ . inhmyls.sh -i
print inode number
[maiya@192 lab2bash]$ . inhmyls.sh -R
recursively list subdirectories
[maiya@192 lab2bash]$

```

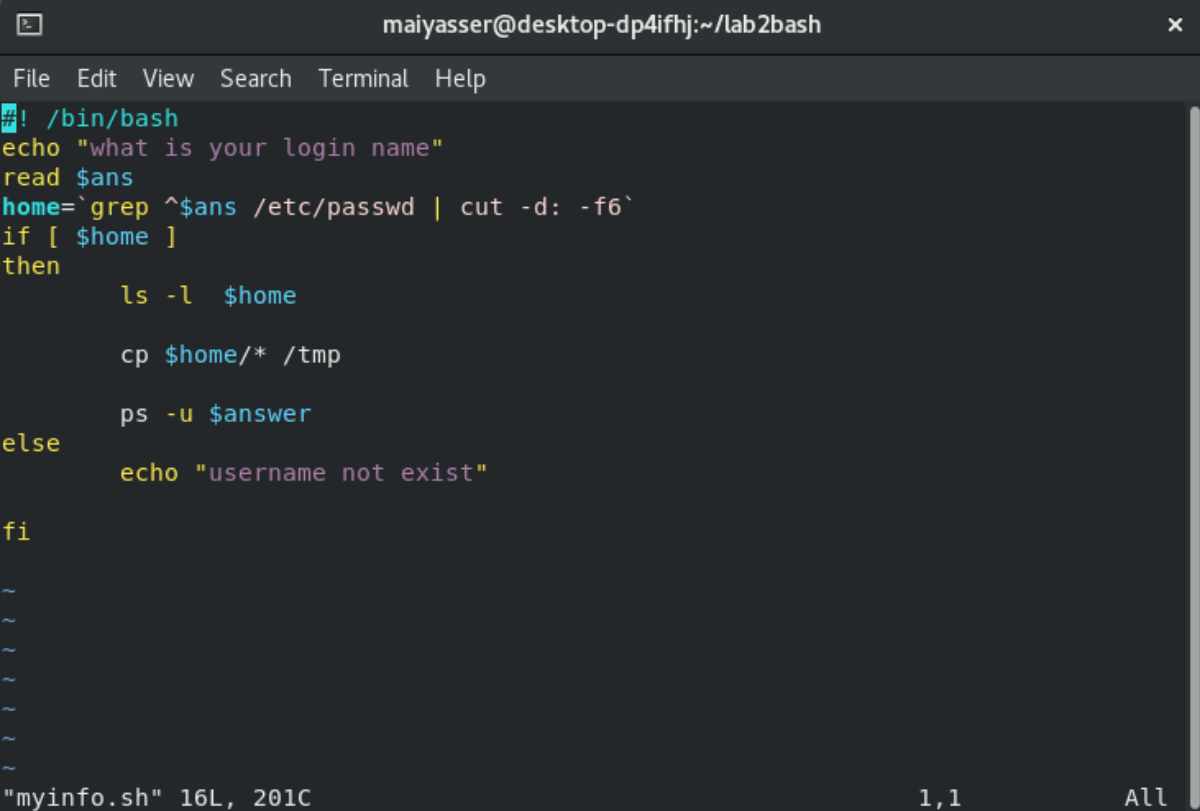
7. Create a script called mytest where:
- It check the type of the given argument (file/directory)
 - It check the permissions of the given argument (read/write/execute)



```
malayasser@localhost:~/lab2bash$ /bin/bash
malayasser@localhost:~/lab2bash$ if [ $# -gt 0 ]
then
    if [ -f $1 ]
    then
        echo this is a file
        if [ -r $1 ]
        then
            echo this file is readable
        elif [ -w $1 ]
        then
            echo this file is writable
        elif [ -x $1 ]
        then
            echo this file is executable
        fi
    elif [ -d $1 ]
    then
        echo this is a directory
        if [ -r $1 ]
        then
            echo this directory is readable
        elif [ -w $1 ]
        then
            echo this directory is writable
        elif [ -x $1 ]
        then
            echo this directory is executable
        fi
    fi
else
    echo you must entre an argument
fi
malayasser@localhost:~/lab2bash$
malayasser@localhost:~/lab2bash$ . mytest.sh
you must entre an argument
malayasser@localhost:~/lab2bash$ . mytest.sh docs
this is a directory
this directory is readable
malayasser@localhost:~/lab2bash$ cd
malayasser@localhost:~/lab2bash$ . mytest.sh ff
this is a file
this file is readable
malayasser@localhost:~/lab2bash$ . mytest.sh file2
this is a file
this file is readable
malayasser@localhost:~/lab2bash$
```

mytest.sh" 33L, 520C 1,1 All

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.



```
maiyasser@desktop-dp4ifhj:~/lab2bash
File Edit View Search Terminal Help
#!/bin/bash
echo "what is your login name"
read $ans
home=`grep ^$ans /etc/passwd | cut -d: -f6`
if [ $home ]
then
    ls -l $home
    cp $home/* /tmp
    ps -u $answer
else
    echo "username not exist"
fi
~
~
~
~
~
~
"myinfo.sh" 16L, 201C 1,1 All
```