```
jilani@ubuntu:~/Desktop$ ./abc.sh foo bat hat
Hello
The program ./abc.sh is now running
The second parameter was bat
The first parameter was foo
The parameter lis was foo bat hat
The user's hme directory is /home/jilani
Please enter a new greeting
thanks
thanks
The script is now complete
jilani@ubuntu:~/Desktop$
```

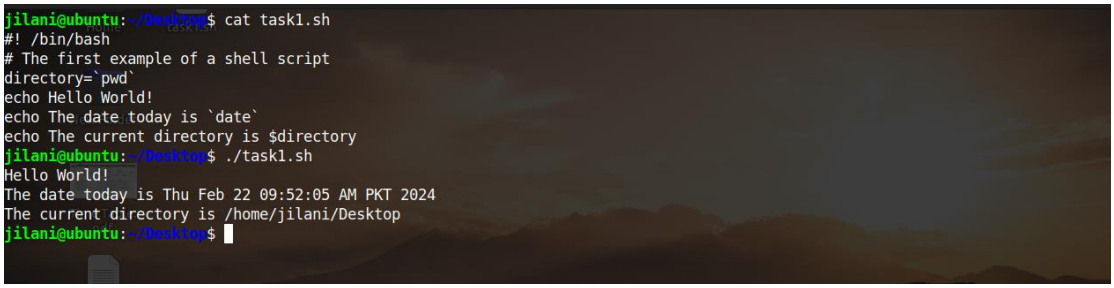
```
jilani@ubuntu:~/Desktop$ echo $SHELL
/bin/bash
jilani@ubuntu:~/Desktop$
```

Linux Shells

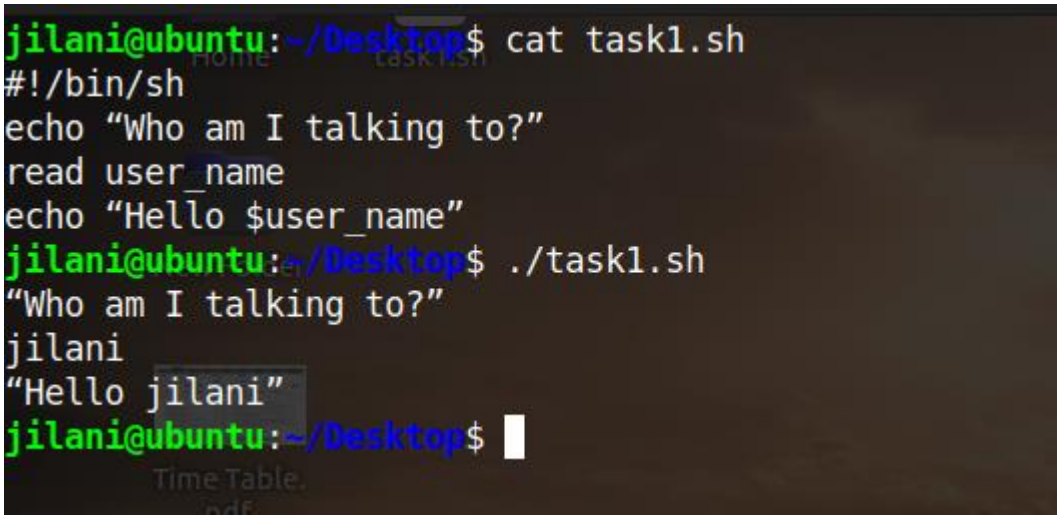
```
jilani@ubuntu:~/Desktop$ ls | sort
abc.sh
Mitigation_Techniques.txt
New Folder
PUCON' 23 CTF's
PUCON' 24 CTF's
Time Table.pdf
jilani@ubuntu:~/Desktop$
```

Pipes

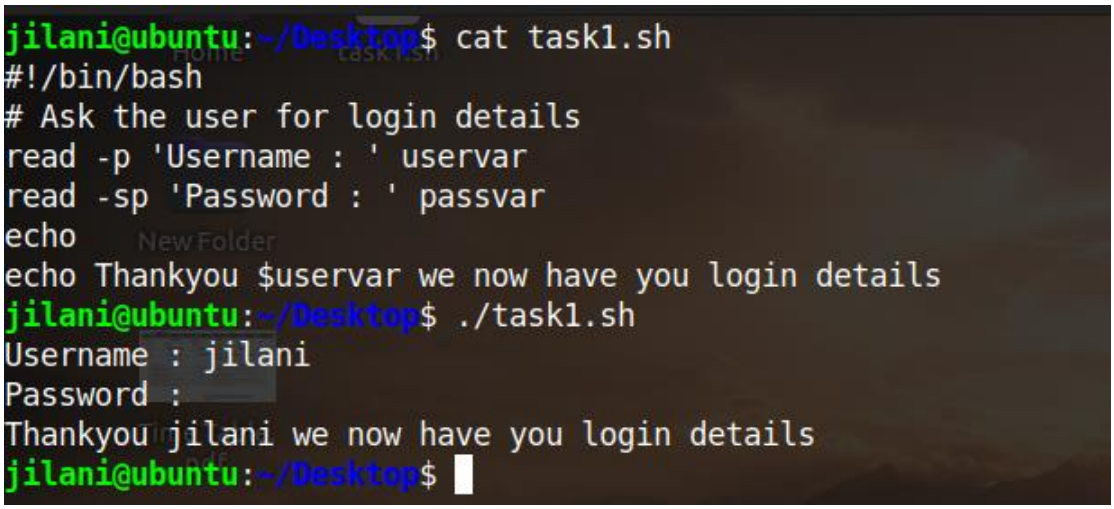
```
jilani@ubuntu:~/Desktop$ cat task1.sh
#!/bin/bash
# use '#" to add comments in shell script
#Author: Numan
#shell scripting practice problem
#script follows here:
pwd
ls
jilani@ubuntu:~/Desktop$ ./task1.sh
/home/jilani/Desktop
 abc.sh   Mitigation_Techniques.txt  'New Folder'  "PUCON' 23 CTF's"  "PUCON' 24 CTF's"   task1.sh  'Time Table.pdf'
jilani@ubuntu:~/Desktop$
```



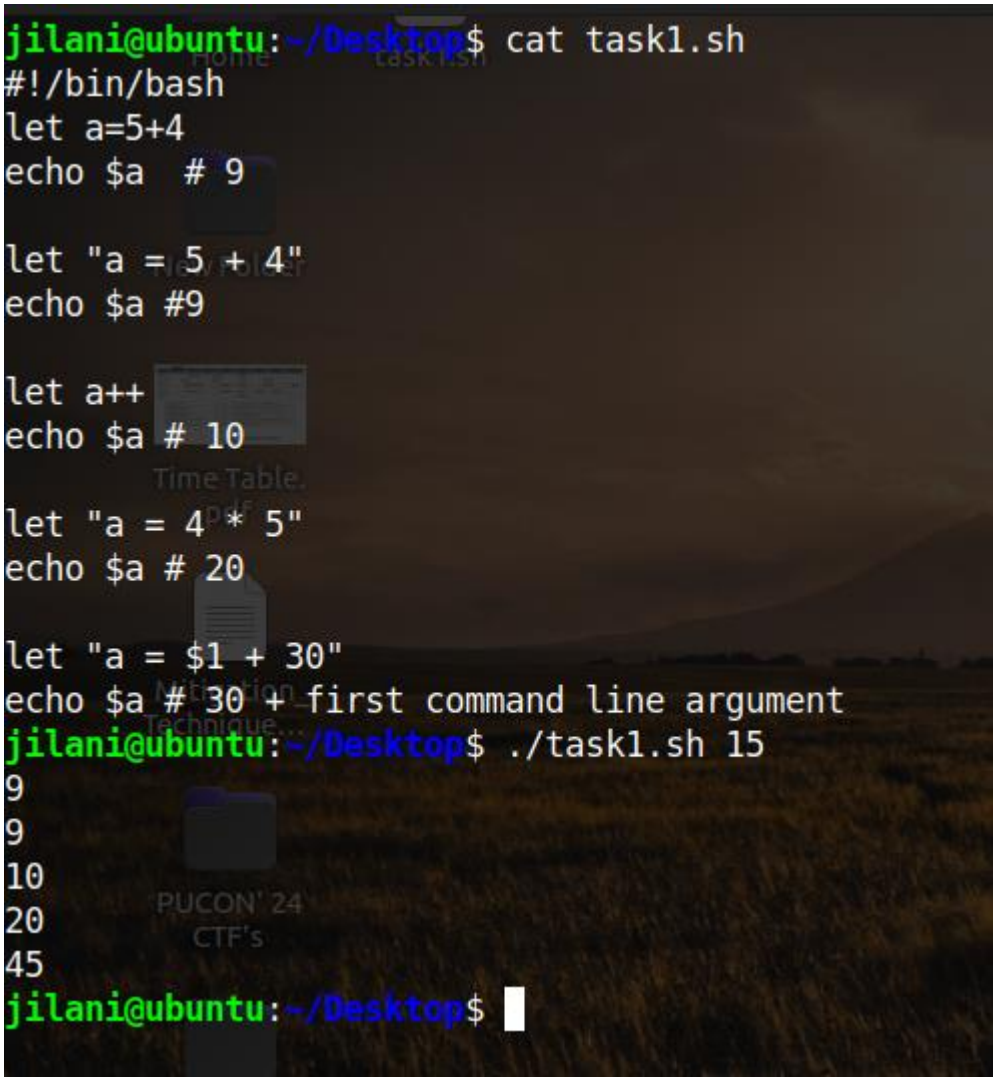
```
jilani@ubuntu:~/Desktop$ cat task1.sh
#! /bin/bash
# The first example of a shell script
directory=`pwd`
echo Hello World!
echo The date today is `date`
echo The current directory is $directory
jilani@ubuntu:~/Desktop$ ./task1.sh
Hello World!
The date today is Thu Feb 22 09:52:05 AM PKT 2024
The current directory is /home/jilani/Desktop
jilani@ubuntu:~/Desktop$
```

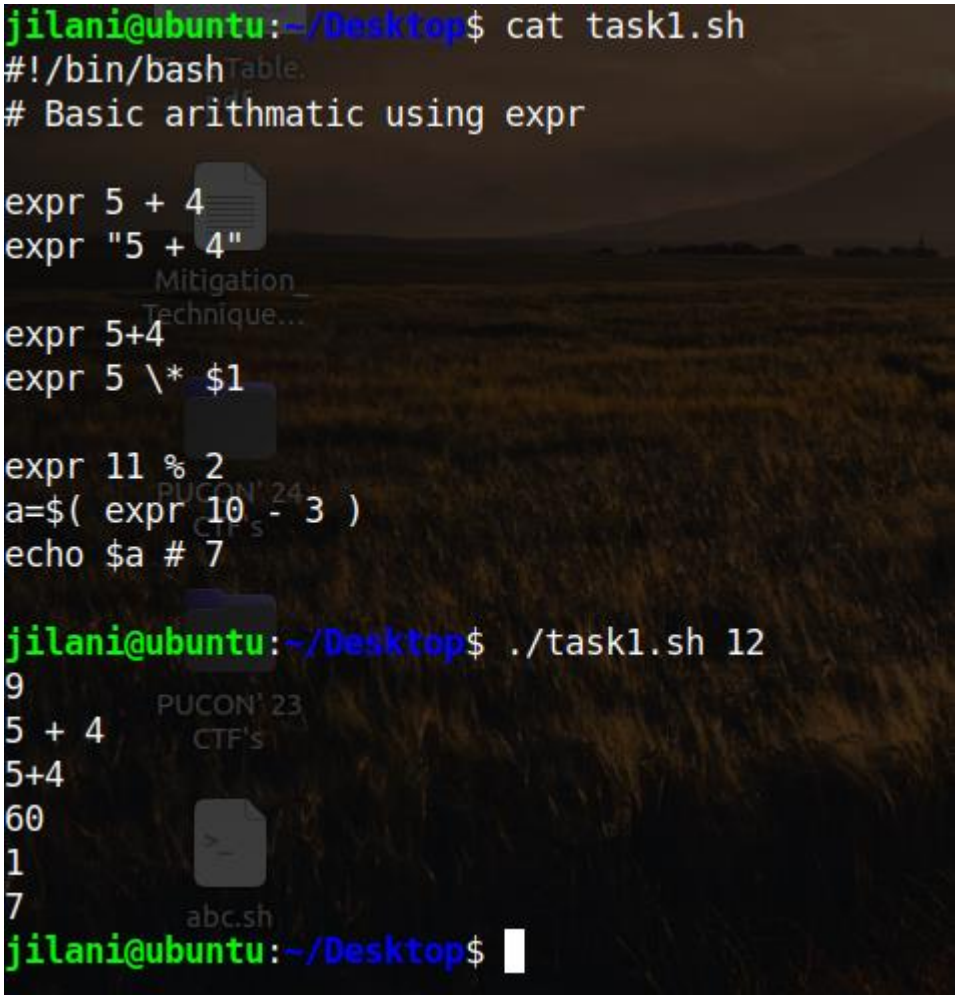


```
jilani@ubuntu:~/Desktop$ cat task1.sh
#!/bin/sh
echo “Who am I talking to?”
read user_name
echo “Hello $user_name”
jilani@ubuntu:~/Desktop$ ./task1.sh
“Who am I talking to?”
jilani
“Hello jilani”
jilani@ubuntu:~/Desktop$
```



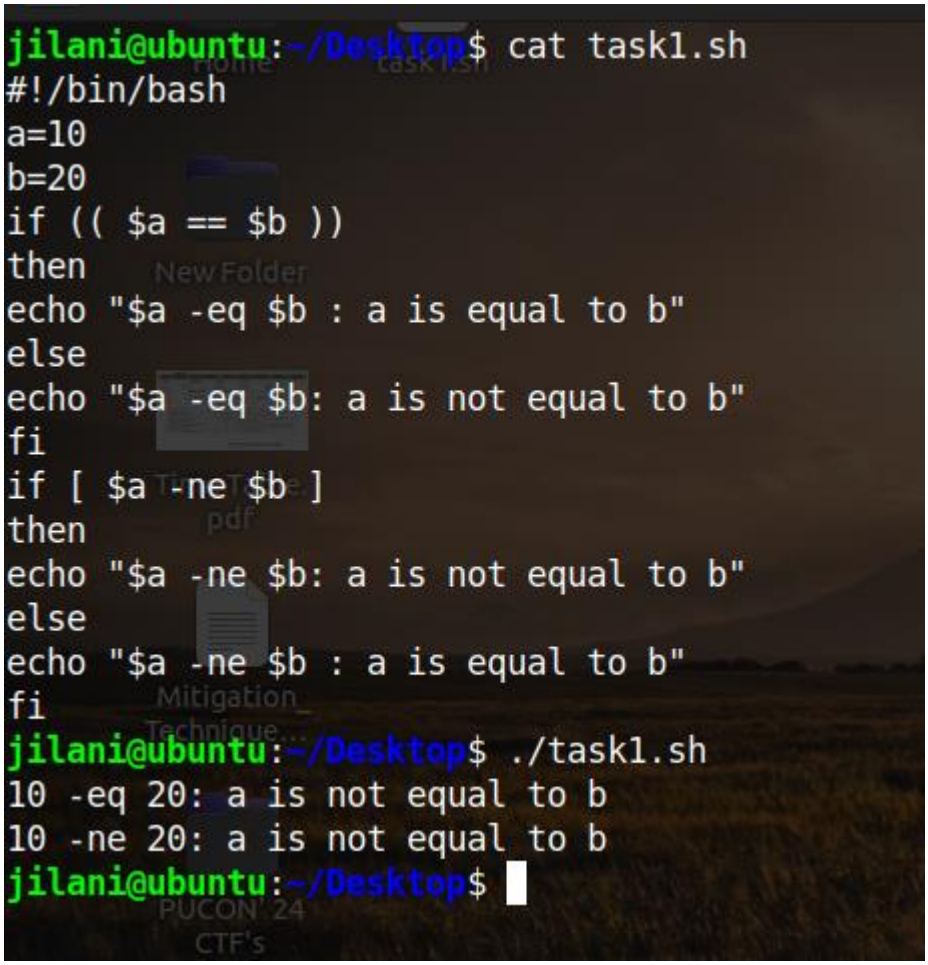
```
jilani@ubuntu:~/Desktop$ cat task1.sh
#!/bin/bash
# Ask the user for login details
read -p 'Username : ' uservar
read -sp 'Password : ' passvar
echo
echo Thankyou $uservar we now have you login details
jilani@ubuntu:~/Desktop$ ./task1.sh
Username : jilani
Password :
Thankyou jilani we now have you login details
jilani@ubuntu:~/Desktop$
```

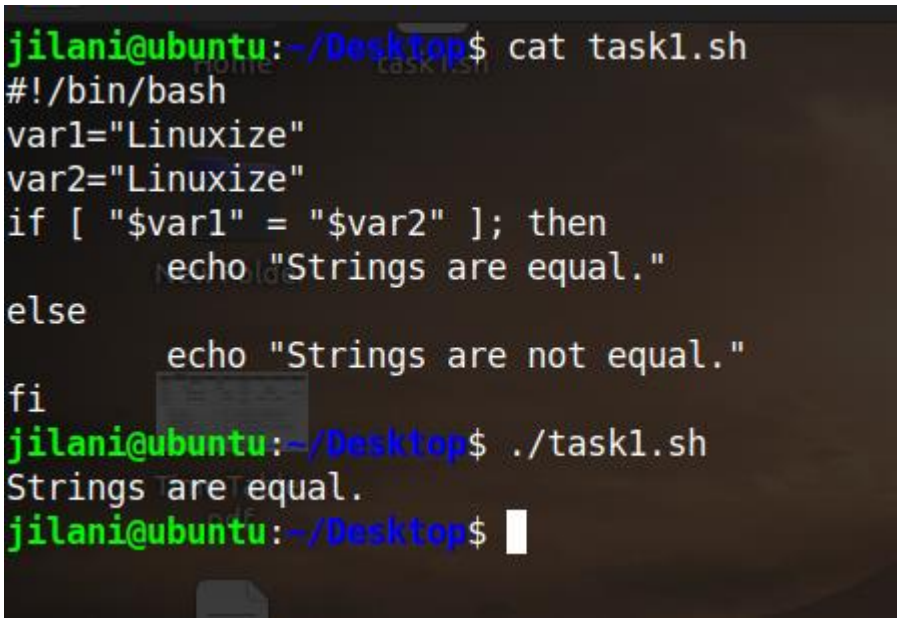

jilani@ubuntu:~/Desktop$ cat task1.sh
#!/bin/bash
let a=5+4
echo $a # 9
let "a = 5 + 4"
echo $a #9
let a++
echo $a # 10
let "a = 4 * 5"
echo $a # 20
let "a = $1 + 30"
echo $a # 30 + first command line argument
jilani@ubuntu:~/Desktop$ ./task1.sh 15
9
9
10
20
45
jilani@ubuntu:~/Desktop$

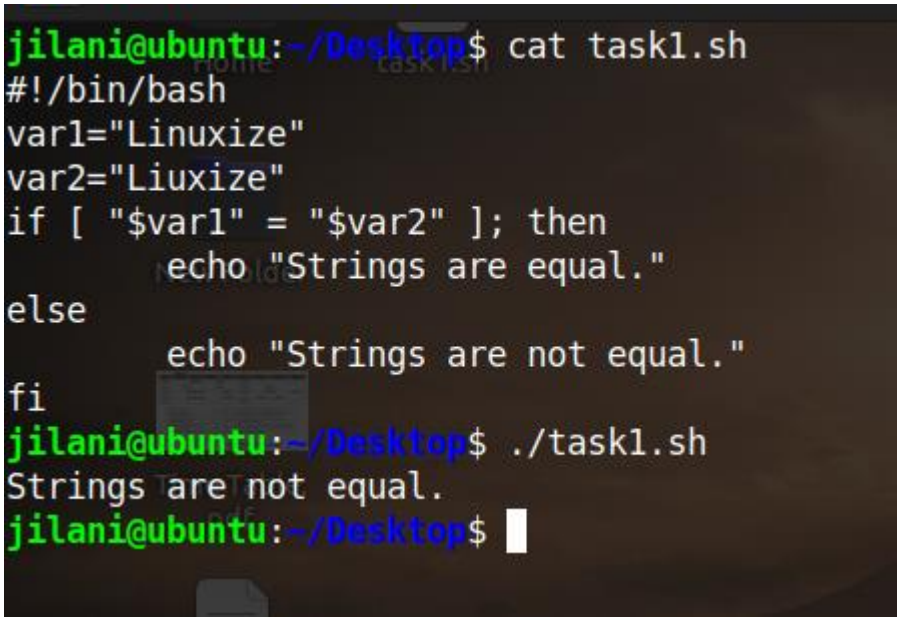

jilani@ubuntu:~/Desktop$ cat task1.sh
#!/bin/bash
Basic arithmatic using expr
expr 5 + 4
expr "5 + 4"
expr 5+4
expr 5 * $1
expr 11 % 2
a=$(expr 10 - 3)
echo $a # 7
jilani@ubuntu:~/Desktop$ ./task1.sh 12
9
5 + 4
5+4
60
1
7
jilani@ubuntu:~/Desktop$

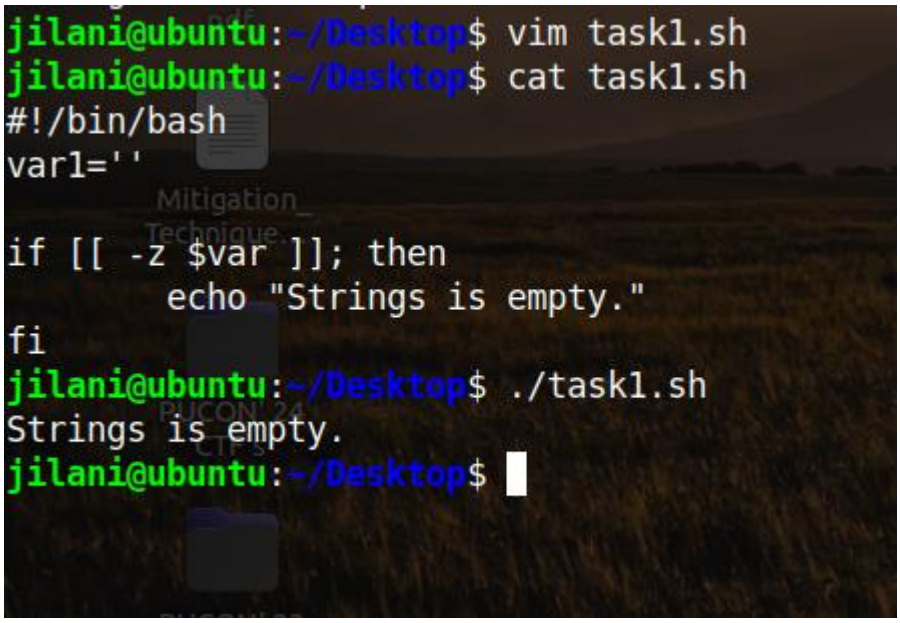
```
jilani@ubuntu:~/Desktop$ cat task1.sh
#!/bin/bash
# Basic arithmetic using double parentheses
a=$(( 45 ))
echo $a #9
a=$((3+5))
echo $a # 8
b=$(( a + 3 ))
echo $b # 11
b=$(( $a + 4 ))
echo $b # 12
(( b++ ))
echo $b # 13
((b += 3 ))
echo $b # 16
a=$(( 4 * 5 ))
echo $a # 20
jilani@ubuntu:~/Desktop$ ./task1.sh
45
8
11
12
13
16
20
jilani@ubuntu:~/Desktop$
```

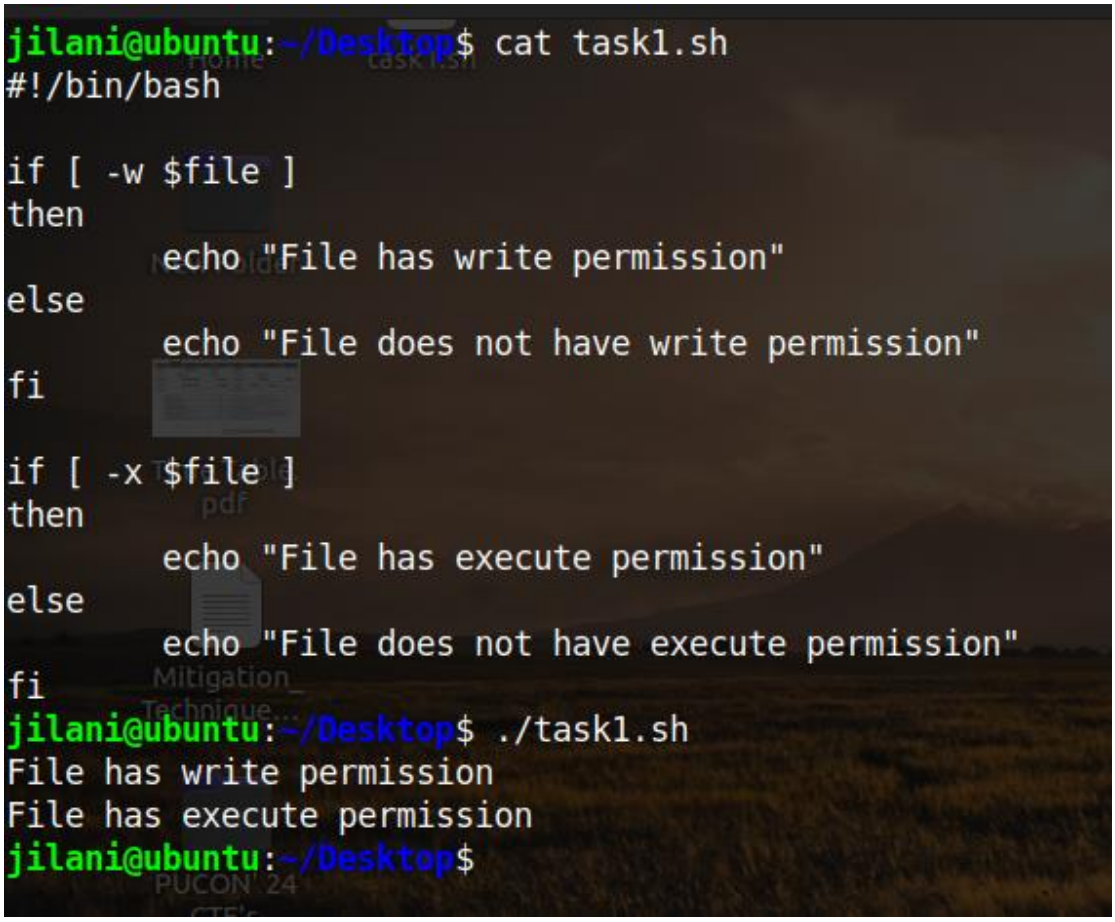
```
jilani@ubuntu:~/Desktop$ cat task1.sh
#!/bin/bash
# Show the length of a variable
a="Hello Wrold"
echo ${#a} # 11

b=4953
echo ${#b} # 4
jilani@ubuntu:~/Desktop$ ./task1.sh
11
4
jilani@ubuntu:~/Desktop$
```


jilani@ubuntu:~/Desktop$ cat task1.sh
#!/bin/bash
a=10
b=20
if (($a == $b))
then
echo "$a -eq $b : a is equal to b"
else
echo "$a -eq $b: a is not equal to b"
fi
if [$a -ne $b]
then
echo "$a -ne $b: a is not equal to b"
else
echo "$a -ne $b : a is equal to b"
fi
jilani@ubuntu:~/Desktop$ ./task1.sh
10 -eq 20: a is not equal to b
10 -ne 20: a is not equal to b
jilani@ubuntu:~/Desktop$


jilani@ubuntu:~/Desktop$ cat task1.sh
#!/bin/bash
var1="Linuxize"
var2="Linuxize"
if ["$var1" = "$var2"]; then
echo "Strings are equal."
else
echo "Strings are not equal."
fi
jilani@ubuntu:~/Desktop$ ./task1.sh
Strings are equal.
jilani@ubuntu:~/Desktop$


jilani@ubuntu:~/Desktop$ cat task1.sh
#!/bin/bash
var1="Linuxize"
var2="Liuxize"
if ["$var1" = "$var2"]; then
echo "Strings are equal."
else
echo "Strings are not equal."
fi
jilani@ubuntu:~/Desktop$ ./task1.sh
Strings are not equal.
jilani@ubuntu:~/Desktop$


jilani@ubuntu:~/Desktop$ vim task1.sh
jilani@ubuntu:~/Desktop$ cat task1.sh
#!/bin/bash
var1=''
if [[-z $var]]; then
echo "Strings is empty."
fi
jilani@ubuntu:~/Desktop$ ./task1.sh
Strings is empty.
jilani@ubuntu:~/Desktop$


jilani@ubuntu:~/Desktop$ cat task1.sh
#!/bin/bash
if [-w $file]
then
echo "File has write permission"
else
echo "File does not have write permission"
fi
if [-x $file]
then
echo "File has execute permission"
else
echo "File does not have execute permission"
fi
jilani@ubuntu:~/Desktop$ ./task1.sh
File has write permission
File has execute permission
jilani@ubuntu:~/Desktop$