

# SHELL SCRIPTING

## >> Testing output for script

```
[ironman@awslinux testscripts]$ vi test-script
[ironman@awslinux testscripts]$ chmod a+x test-script
[ironman@awslinux testscripts]$ ./test-script
Hello World
[ironman@awslinux testscripts]$ |
```

## >>Assigning tasks

```
#!/bin/bash
```

```
# Define small tasks
```

```
whoami
```

```
echo
```

```
pwd
```

```
echo
```

```
hostname
```

```
echo
```

```
ls -ltr
```

```
echo
```

## >>Executing

```
[ironman@awslinux testscripts]$ vi tasks-script
[ironman@awslinux testscripts]$ chmod a+x tasks-script
[ironman@awslinux testscripts]$ ./ tasks-script
bash: ./: Is a directory
[ironman@awslinux testscripts]$ ./tasks-script
ironman

/home/ironman/testscripts

awslinux

total 8
-rwxr-xr-x. 1 ironman superheroes 54 Oct 31 08:59 test-script
-rwxr-xr-x. 1 ironman superheroes 81 Oct 31 09:00 tasks-script
```

## >>Adding Variables:

```
#!/bin/bash
```

```
# Example of defining variables
```

```
a=Farsaan
```

```
b=Siddiqui
```

```
c=script-practice
```

```
echo "My first name is $a"
```

```
echo "My surname is $b"
```

```
echo "This is $c"
```

## >>Executing

```
[ironman@awslinux testscripts]$ ./variables-script
./variables-script: line 5: Scripting: command not found
My first name is Farsaan
My surname is Siddiqui
./variables-script: line 8: This: command not found

[ironman@awslinux testscripts]$ vi variables-script
[ironman@awslinux testscripts]$ ./variables-script
My first name is Farsaan
My surname is Siddiqui
This is script-practice
[ironman@awslinux testscripts]$ |
```

## >>Creating Read Script

```
#!/bin/bash
```

```
# Read user input
```

```
echo "What is your first name?"
```

```
read a
```

```
echo
```

```
echo "What is your last name?"
```

```
read b
```

```
echo
```

```
echo Hello $a $b
```

## >>Executing

```
[ironman@awslinux testscripts]$ vi read-script
[ironman@awslinux testscripts]$ chmod a+x read-script
[ironman@awslinux testscripts]$ ./read-script
What is your first name?
FARSAAN

What is your last name?
SIDDIQUI

Hello FARSAAN SIDDIQUI
```

## >>commands script

*# Script to run commands within*

*clear*

*echo "Hello `whoami`"*

*echo*

*echo "Today is `date`"*

*echo*

*echo "Number of user login: `who | wc -l`"*

## >>Executing

```
Hello ironman

Today is Thu Oct 31 09:14:04 UTC 2024

Number of user login: 3
[ironman@awslinux testscripts]$ vi commands-script
[ironman@awslinux testscripts]$ [ironman@awslinux testscripts]$ chmod a
+x commands-script
[ironman@awslinux testscripts]$ ./commands-script |
```

## >>Tasks script

*#!/bin/bash*

*# Define small tasks*

*whoami*

*echo*

*pwd*

*echo*

*hostname*

*echo*

*ls -ltr*

*echo*

## >>Executing

```
[ironman@awslinux testscripts]$ vi task-script
[ironman@awslinux testscripts]$ chmod a+x task-script
[ironman@awslinux testscripts]$ ./task-script
Enter the file name to be renamed
commands-script
Enter the new file name
run-commands
The file has been renamed as run-commands
[ironman@awslinux testscripts]$ ls -l
total 24
-rwxr-xr-x. 1 ironman superheroes 134 Oct 31 09:10 read-script
-rwxr-xr-x. 1 ironman superheroes 149 Oct 31 09:13 run-commands
-rwxr-xr-x. 1 ironman superheroes 223 Oct 31 09:16 task-script
-rwxr-xr-x. 1 ironman superheroes 81 Oct 31 09:00 tasks-script
-rwxr-xr-x. 1 ironman superheroes 54 Oct 31 08:59 test-script
-rwxr-xr-x. 1 ironman superheroes 153 Oct 31 09:09 variables-script
```

## >>Case script

```
#!/bin/bash

echo

echo Please chose one of the options below

echo

echo 'a = Display Date and Time'

echo 'b = List file and directories'

echo 'c = List users logged in'

echo 'd = Check System uptime'

echo

    read choices

    case $choices in

a) date;;

b) ls;;

c) who;;

d) uptime;;

*) echo Invalid choice - Bye.

echo

esac
```

## >>Executing

```
[ironman@awslinux testscripts]$ vi case-script
[ironman@awslinux testscripts]$ chmod a+x case-script
[ironman@awslinux testscripts]$ ./case-script

Please chose one of the options below

a = Display Date and Time
b = List file and directories
c = List users logged in
d = Check System uptime

c
ec2-user pts/0          2024-10-31 08:00 (106.222.228.179)
ec2-user pts/1          2024-10-31 08:53 (106.222.228.179)
ec2-user pts/2          2024-10-31 08:54 (106.222.228.179)
[ironman@awslinux testscripts]$ ./case-script

Please chose one of the options below

a = Display Date and Time
b = List file and directories
c = List users logged in
d = Check System uptime

h
Invalid choice - Bye.
```

>>loop script

```
#!/bin/bash
```

```
for i in {1..5}
```

```
do
```

```
    touch $i
```

```
done
```

>>Executing

```
[ironman@awslinux testscripts]$ vi loop-script
[ironman@awslinux testscripts]$ chmod a+x loop-script
[ironman@awslinux testscripts]$ ./loop-script
[ironman@awslinux testscripts]$ cat loop-script
#!/bin/bash
for i in {1..5}
do
    touch $i
done
[ironman@awslinux testscripts]$ ls -l | grep ^~r
-rw-r--r--. 1 ironman superheroes 0 Oct 31 09:31 1
-rw-r--r--. 1 ironman superheroes 0 Oct 31 09:31 2
-rw-r--r--. 1 ironman superheroes 0 Oct 31 09:31 3
-rw-r--r--. 1 ironman superheroes 0 Oct 31 09:31 4
-rw-r--r--. 1 ironman superheroes 0 Oct 31 09:31 5
-rwxr-xr-x. 1 ironman superheroes 344 Oct 31 09:19 case-script
-rwxr-xr-x. 1 ironman superheroes 48 Oct 31 09:30 loop-script
-rwxr-xr-x. 1 ironman superheroes 134 Oct 31 09:10 read-script
-rwxr-xr-x. 1 ironman superheroes 149 Oct 31 09:13 run-commands
-rwxr-xr-x. 1 ironman superheroes 223 Oct 31 09:16 task-script
-rwxr-xr-x. 1 ironman superheroes 81 Oct 31 09:00 tasks-script
-rwxr-xr-x. 1 ironman superheroes 54 Oct 31 08:59 test-script
-rwxr-xr-x. 1 ironman superheroes 153 Oct 31 09:09 variables-script
-rwxr-xr-x. 1 ironman superheroes 208 Oct 31 09:26 while-script
[ironman@awslinux testscripts]$ ls -l | grep ^0
[ironman@awslinux testscripts]$ ls -l | grep ^~rw-
-rw-r--r--. 1 ironman superheroes 0 Oct 31 09:31 1
-rw-r--r--. 1 ironman superheroes 0 Oct 31 09:31 2
-rw-r--r--. 1 ironman superheroes 0 Oct 31 09:31 3
-rw-r--r--. 1 ironman superheroes 0 Oct 31 09:31 4
-rw-r--r--. 1 ironman superheroes 0 Oct 31 09:31 5
```

## >>Userloop

```
#!/bin/bash
```

```
i=1
```

```
for username in `awk -F: '{print $1}' /etc/passwd`
```

```
do
```

```
    echo "Username $((i++)) : $username"
```

```
done
```

```
[ironman@awslinux testscripts]$ vi user-loop
[ironman@awslinux testscripts]$ chmod a+x user-loop
[ironman@awslinux testscripts]$ vi user-loop
[ironman@awslinux testscripts]$ ./user-loop
./user-loop: line 5: i+: syntax error: operand expected (error token is
"+")
[ironman@awslinux testscripts]$ vi user-loop
[ironman@awslinux testscripts]$ cat user-loop
#!/bin/bash
i=1
for username in `awk -F: '{print $1}' /etc/passwd`
do
    echo "Username $((i++)) : $username"
done
```

## >>Executing

```
[ironman@awslinux testscripts]$ ./user-loop
Username 1 : root
Username 2 : bin
Username 3 : daemon
Username 4 : adm
Username 5 : lp
Username 6 : sync
Username 7 : shutdown
Username 8 : halt
Username 9 : mail
Username 10 : operator
Username 11 : games
Username 12 : ftp
Username 13 : nobody
Username 14 : dbus
Username 15 : systemd-network
Username 16 : systemd-oom
Username 17 : systemd-resolve
Username 18 : sshd
Username 19 : rpc
Username 20 : libstoragemgmt
Username 21 : systemd-coredump
Username 22 : systemd-timesync
Username 23 : chrony
Username 24 : ec2-instance-connect
Username 25 : rpcuser
Username 26 : tcpdump
Username 27 : ec2-user
Username 28 : apache
Username 29 : spiderman
Username 30 : ironman
Username 31 : nginx
```

>>if then script

*#!/bin/bash*

*clear*

*echo*

*echo "What is your name?"*

*echo*

*read a*

*echo*

*echo Hello \$a*

*echo*

*echo "Have you had lunch? (y/n)"*

*read Have*

*echo*

*if [ "\$Have" == y ]*

*then*

*echo You are cool*

*elif [ "\$Have" == n ]*

*then*

*echo You should try tea, it's a good sweet*

*echo*

*fi*

>>Executing

What is your name?

Siddiq

Hello Siddiq

Have you had lunch? (y/n)

y

You are cool

[ironman@awslinux testscripts]\$ |