

19.01.2025

Day-11

shell scripting

→ Let's continue with a linux instance.

→ Remove everything before starting.

Putty:

```
[root@ip-172-31-14-99 ~]# echo "hello"
```

[∴ basic echo cmd]

```
hello
```

```
[root@ip-172-31-14-99 ~]# echo $BASH
```

```
/bin/bash
```

```
[root@ip-172-31-14-99 ~]# echo $BASH_VERSION
```

```
5.2.15(1) - release
```

```
[root@ip-172-31-14-99 ~]# echo $HOME
```

```
/root
```

```
[root@ip-172-31-14-99 ~]# echo $PWD
```

```
/root
```

[∴ system variables]

user variable:

```
[root@ip-172-31-14-99 ~]# vi syed.sh
```

```
[root@ip-172-31-14-99 ~]# ls
```

syed.sh
→ w

[∴ white - means file]

```
[root@ip-172-31-14-99 ~]# chmod 777 syed.sh
```

```
[root@ip-172-31-14-99 ~]# ls
```

syed.sh
→ green

[∴ Green because we give
RWE permissions]

[∴ with those 3 permissions
only we can run a ".sh"
file]

```
[root@ip-172-31-14-99 ~]# vi syed.sh
```

#user variable

name=priya

val=10

echo the name is \$name

echo value \$val

:

!wq!

```
[root@ip-172-31-14-99 ~]# ./syed.sh
```

the name is priya

value 10

to get input from terminal:

```
[root@ip-172-31-14-99 ~]# vi syed.sh
```

to get the input from terminal

echo "enter name: "

read name

echo "entered name: \$name"

:

!wq!

```
[root@ip-172-31-14-99 ~]# ./syed.sh
```

```
enter name :
```

```
Syed ibrahim
```

```
entered name : Syed ibrahim
```

→ another method

To print name on same line:

```
[root@ip-172-31-14-99 ~]# vi syed.sh
```

```
read -p "enter name: " name
```

∴ [-p = single prompt

```
echo "entered name: $name"
```

```
[root@ip-172-31-14-99 ~]# ./syed.sh
```

```
enter name : ibrahim
```

```
entered name : ibrahim
```

To get multiple names:

```
[root@ip-172-31-14-99 ~]# vi syed.sh
```

```
# to get multiple names
```

```
echo "enter name: "
```

```
read name1 name2 name3
```

```
echo "names: $name1 , $name2 , $name3"
```

```
:
```

```
[root@ip-172-31-14-99 ~]# ./syed.sh
```

```
enter name:
```

```
Syed anas mohamed
```

```
names : Syed, anas, mohamed
```

to hide password from viewing:

[root@ip-172-31-14-99 ~]# vi Syed.sh

to hide password from viewing

```
read -s 'user:' user_var
```

```
read -s 'pass:' pass
```

```
echo
```

```
echo "user: $user_var"
```

```
echo "pass: $pass"
```

```
:
```

```
:.a9!
```

[root@ip-172-31-14-99 ~]# ./Syed.sh

```
user: Syed
```

```
pass: admin123 (won't display)
```

```
user: Syed
```

```
pass: admin123
```

[\therefore -s = hides input typed by user

\therefore P = Displays a prompt message
before taking input]

[\therefore without empty "echo", output will
print from 2nd line]

conditions in shell:

[root@ip-172-31-14-99 ~]# vi Syed.sh

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

```
count=10
```

```
if [ $count -eq 10 ] # checks if count equals 10  
then
```

```
echo "true"
```

```
elif [ $count -lt 20 ] # checks if count is less than 20  
then
```

```
echo "it is valid"
```

```
else
```

```
echo "false"
```

```
fi
```

```
:.a9!
```

root@ip-172-31-14-99 ~]# ./syed.sh

true

String:

root@ip-172-31-14-99 ~]# vi syed.sh

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

```
word=abc
```

```
if [ $word == "abcerte" ]
```

```
then
```

```
    echo "true"
```

```
else
```

```
    echo "false"
```

```
fi
```

```
:
```

```
:wq!
```

root@ip-172-31-14-99 ~]# ./syed.sh

false

root@ip-172-31-14-99 ~]# vi syed.sh

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

```
word=a
```

```
if [ [ "$word" == "abcerte" ] ]
```

```
then
```

```
    echo "true"
```

```
elif [ [ "$word" == "ghia" ] ]
```

```
then
```

```
    echo "thy"
```

```
else
```

```
    echo "false"
```

```
fi
```

```
:
```

```
:wq!
```

root@ip-172-31-14-99 ~]# ./syed.sh

false

[root@ip-172-31-14-99 ~]# vi syed.sh

#!/usr/bin/bash

echo -n "Enter the name of the file : "

read hello

if [-e "\$hello"]

then

echo "\$hello found"

else

echo "\$hello not found"

fi

:

;;

[root@ip-172-31-14-99 ~]# ls

syed.sh

[root@ip-172-31-14-99 ~]# vi file1

[root@ip-172-31-14-99 ~]# ls

syed.sh file1

[root@ip-172-31-14-99 ~]# ./syed.sh

Enter the name of the file : file1

file1 found

[-e = checks the file,
directory or any type
file]

```
[root@ip-172-31-14-99 ~]# vi syed.sh
```

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

```
echo -n "Enter the name of the directory:"
```

```
read hello
```

```
# check if it's a directory
```

```
if [-d "$hello"]
```

```
then
```

```
# check if the directory has write permissions
```

```
if [-w "$hello"]
```

```
then
```

```
echo "You can type some data into a file inside the directory. to quit,  
press ctrl+D:"
```

```
# create a file inside the directory and append data to it
```

```
echo "Enter file name to save data:" # ask user for file name
```

```
read file_name
```

```
cat > "$hello/$file_name" # create or overwrite the file inside the directory
```

```
else
```

```
echo "The directory does not have write permissions."
```

```
fi
```

```
else
```

```
echo "Directory '$hello' not found."
```

```
fi
```

```
:
```

```
:.wq!
```

```
[root@ip-172-31-14-99 ~]# mkdir folder1
```

```
[root@ip-172-31-14-99 ~]# ls
```

```
syed.sh folder1
```

```
[root@ip-172-31-14-99 ~]# ./syed.sh
```

```
Enter the name of the directory: folder1
```

```
You can type some data into a file inside the directory. to quit, press ctrl+D:
```

sample-file
hi from sample-file

[root@ip-172-31-14-99 ~]# cd folder1

[root@ip-172-31-14-99 folder1]# ls

sample-file

[root@ip-172-31-14-99 folder1]# cat sample-file

hi from sample-file

Logical operators (& &)

[root@ip-172-31-14-99 ~]# vi syed.sh

#!/usr/bin/bash

age=10

if ["\$age" -gt 9] && ["\$age" -lt 30]

then

echo "valid age"

else

echo "age not valid"

fi

:

:wq!

[root@ip-172-31-14-99 ~]# ./syed.sh

valid age

[∴ can also write as

if ["\$age" -gt 9 -a "\$age" -lt 30]]

OR operator: ||

[root@ip-172-31-14-99 ~]# vi syed.sh

num=60

if ["\$num" -gt 18] || ["\$num" -lt 30]

then

echo "valid"

else

echo "not valid"

fi

:

! wg!

[root@ip-172-31-14-99 ~]# ./syed.sh

valid

[∴ can also write

if ["\$num" -gt 18 -o "\$num" -lt 30]

Arithmetic operations:

num1=20

num2=40

echo \$((num1 + num2))

(or) echo \$(expr \$num1 + \$num2)

echo \$((num1 - num2))

:

echo \$((num1 * num2))

echo \$((num1 / num2))

output:

60

-20

800

0