```
IF CONDITION SYNTAX
if [[condition]
then
<blook>
if [[condition]]
then
<blook>
elif [[condition]]
then
<blook>
fi
if [[condition]]
then
<blook>
elif [[condition]]
then
<blook>
elif [[condition]]
then
<blook>
else
<STATEMENT>
fi
=~ ====> matches condition
== ===> string condition matches(if both strings are equal)
!= ====> string doesnt matches
-eq ===> check whether input number is equal
-gt ===> input number is greater than
-lt ===> input number is lesser than
-ge ===> greaterthan or equal
-ne ===> not equal
-le ==> lesser than or equal
```

Script to check palindrome or not

```
#!/bin/bash
echo "Enter the user input"
read p
echo $p
revout=$(echo $p|rev)
if [[ $p == $revout ]]
then
echo "String $p is palindrome"
else
echo "String $p is not palindorme"
fi
```

Script used to check whether user input is "prveen"

```
#!/bin/bash
echo "Enter the input"
read a
if [[ $a == "praveen" ]]
echo -e "Entered input is $a\n its true"
else
echo -e "its false"
Script used to check whether user input is Praveen or Praveen or ajay or AJAY
#!/bin/bash
echo "Enter the input"
read a
if [[ $a == "praveen" ]] || [[ $a == "PRAVEEN" ]]
then
echo -e "Entered input is $a\n its true"
elif [[ $a == "ajay" ]] || [[ $a == "AJAY" ]]
then
echo "Its partially true"
else
echo -e "its false"
fi
Script used to check whether user input is Praveen or Praveen or ajay or AJAY
#!/bin/bash
echo "Enter the input"
read a
if [[ $a == "praveen" ]] || [[ $a == "PRAVEEN" ]]|| [[ $a == "ajay" ]] || [[ $a == "AJAY" ]]
echo "Entered input is $a and its true"
else
echo -e "its false"
fi
#!/bin/bash
echo "Enter the number1"
read n1
echo "Enter the number2"
read n2
if [[ $n1 -eq $n2 ]]
then
echo "Both number are same"
elif [[ $n1 -gt $n2 ]]
echo "Number $n1 is greater than $n2"
echo "Enter the number to be added"
read u
```

```
eiii [[ $n1 -it $n2 ]]
then
echo "Number $n1 is lesser than $n2"
echo "Enter the number to be subtracted"
n3=$(($n1-$n2-$u))
echo "Final output subtraction of $u to $n1 and $n2 is $n3"
uname
else
echo "Not satisfied with any condition"
who
fi
Calculator script
press '1' for addition for 2 numbers
'2' for subtraction of n2 from n1(n1-n2)
'3' mutltiplication (n1*n2)
'4' division (n1/n2)
#!/bin/bash
echo "Enter the Number"
read n1
echo "Enter the number"
read n2
echo -e "Enter '1' for addition\n'2' for subtraction\n '3' for multiplication\n'4' for division"
read usr
if [[ $usr -eq 1 ]]
then
n3=$(($n1+$n2))
echo "Addition output is $n3"
elif [[ $usr -eq 2 ]]
then
n3=$(($n1-$n2))
echo "Subratioon output is $n3"
elif [[ $usr -eq 3 ]]
then
n3=$(($n1*n2))
echo "Multiplication output is $n3"
elif [[ $usr -eq 4 ]]
then
n3=$(($n1/$n2))
echo "Division output is $n3"
[root@praveen Linux tmp]# sh calculator.sh
Enter the Number
20
Enter the number
Enter '1' for addition
'2' for subtraction
'3' for multiplication
'4' for division
2
Subratioon output is -10
[root@praveen Linux tmp]# sh calculator.sh
```

```
LЗ
Enter '1' for addition
'2' for subtraction
'3' for multiplication
'4' for division
3
Multiplication output is 2639
[root@praveen_Linux tmp]# sh calculator.sh
Enter the Number
34
Enter the number
12
Enter '1' for addition
'2' for subtraction
'3' for multiplication
'4' for division
Division output is 2
create script to check even or odd based on below condition
if n1 > n2 ===> chck n1 is even number or not
if n1 <n2 ===> check n2 is even numver or noy
if n1 == n2 add number as per user input
#!/bin/bash
echo "Enter the number1"
read n1
echo "Enter the number2"
read n2
if [[ $n1 -gt n2 ]]
then
if [[ $n1%2 -eq 0 ]]
echo "$n1 is even and $n1 is greater than $n2"
elif [[ $n1 -lt $n2 ]]
then
if [[ $n2%2 -eq 0 ]]
echo "$n2 is even and $n1 lesser than $n2"
elif [[ $n1 -eq $n2 ]]
then
echo "Enter the number to be added"
read n3
n4=$(($n1+$n2+$n3))
echo "Addition of $n1 and $n2 and $n3 is $n4"
echo "Invalid input"
fi
output
[root@praveen_Linux tmp]# sh test_even_odd.sh
Enter the number1
```

```
40 is even and 40 is greater than 10
[root@praveen Linux tmp]# sh test even odd.sh
Enter the number1
10
Enter the number2
40
40 is even and 10 lesser than 40
[root@praveen Linux tmp]# sh test even odd.sh
Enter the number1
30
Enter the number2
30
Addition of 30 and 30 and 50 is 110
[root@praveen_Linux tmp]# vim test_even_odd.sh
[root@praveen Linux tmp]# sh test even odd.sh
Enter the number1
12
Enter the number2
12
Enter the number to be added
Addition of 12 and 12 and 50 is 74
a. Script will take 2 inputs
b. count of characters of input1 greater than count of chatcrer of input2 perform one operation and
viceversa
#!/bin/bash
echo "Enter the input1"
read a
echo "Enter the input2"
read b
coa=$(echo $a |wc -c)
cob=$(echo $b |wc -c)
if [[ $coa -gt $cob ]]
then
ou="$a$b"
sum of chart=$(($coa+$cob))
echo -e "Count of characters of input $a is greater than count of charater of input $b and combined
output of $a and $b is $ou\n Count of characters of $a and$b is $sum of chart"
elif [[ $cob -gt $coa ]]
then
echo "Enter another user input"
read c
coc=$(echo $c|wc -c)
ou="$a$b$c"
sum_di_cha=$(($coa-$cob+$coc))
echo -e "Count of characters of input $b is greater than count of charater of input $a and combined
output of $a and $b and $c is $ou\n Count of character in $a is $coa\nCount of character in $b is
$cob\nCount of charcters $a and $b and subtract $c is $sum di cha"
elif [[ $coa -eq $cob ]]
then
echo -e "Count of characters of $a and $b is same"
if [[ $a == $b ]]
then
echo "Both input $a and $b is same"
```

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← shellscriptclass

```
groupadd $a
grep $b /etc/group >> /tmp/$a
echo "Verification of user and group details"
cat /tmp/$a
elif [[ $a != $b ]]
echo "Enter the input to be checked in $a"
read con
col=$(echo $a |grep $con|wc -l)
if [[ $col -gt 0 ]]
then
echo "$con present in input $a"
else
echo "$con not present in input $a"
fi
fi
fi
For loop syntax
cstyle
for ((intializaton;condition;increment/decrement))
<blook of statement>
}
Unix/Linux style
for ((intializaton;condition;increment/decrement))
do
<blook of stattment>
#!/bin/bash
for((i=1;i<=20;i++))
do
echo $i
done
[root@praveentechnoligies ~]# sh for loop.sh
1
2
3
4
5
6
7
8
9
10
11
12
```

```
17
18
19
20
To check even or odd number between 1 to 20
#!/bin/bash
for((i=1;i<=20;i++))
if [[ $i%2 -eq 0 ]]
then
echo "Number $i is even"
fi
done
Number 2 is even
Number 4 is even
Number 6 is even
Number 8 is even
Number 10 is even
Number 12 is even
Number 14 is even
Number 16 is even
Number 18 is even
Number 20 is even
To check odd numbers
#!/bin/bash
for((i=1;i<=20;i++))
do
if [[ $i%2 -ne 0 ]]
echo "Number $i is odd"
fi
Number 1 is odd
Number 3 is odd
Number 5 is odd
Number 7 is odd
Number 9 is odd
Number 11 is odd
Number 13 is odd
Number 15 is odd
Number 17 is odd
Number 19 is odd
#!/bin/bash
for((i=1;i<=20;i++))
do
if [[ $i%2 -ne 0 ]]
then
echo "Number $i is odd"
```

shellscriptclass \leftarrow

```
done
output..
Number 1 is odd
Number 2 is even
Number 3 is odd
Number 4 is even
Number 5 is odd
Number 6 is even
Number 7 is odd
Number 8 is even
Number 9 is odd
Number 10 is even
Number 11 is odd
Number 12 is even
Number 13 is odd
Number 14 is even
Number 15 is odd
Number 16 is even
Number 17 is odd
Number 18 is even
Number 19 is odd
Number 20 is even
```

- a. check wthetr numiber is even or odd
- b. if number is odd check wther number is divisable by even input number or not

```
#!/bin/bash
echo "enter the number"
read p
for ((i=0;i<=20;i++))
do
if [[ $i%2 -eq 0 ]]
then
echo "$i is even"
uptime
else
echo "$i is odd"
if [[ $i%$p -eq 0 ]]
echo "$i is odd and its completely divisable by $p"
who-r
echo "$i is odd and its not completely divisable by $p"
fi
fi
done
Jumping number as per input range
#!/bin/bash
echo "Enter the Jump range"
```

=~ ====> matches condition

```
αo
echo $i
j=$(($i+$p-1))
i=$j
done
To check particular content or not present in list of files
#!/bin/bash
for fil in y.txt io.txt tt.txt
do
for con in "praveen" "sanath" "dhanraj" "abhi" "kiran"
do
col=$(grep $con $fil|wc -l)
if [[ $col -gt 0 ]]
then
lin=$(grep -in $con $fil|cut -d ":" -f1)
echo "$con present in $fil in line number $lin"
echo "$con not present in $fil"
fi
done
echo "=====End of file $fil=========="
done
To Check which line contains maximumc character
#!/bin/bash
j=0
cof=0
for i in $(cat file.txt)
j=\$((\$j+1))
coc=$(echo $i|wc -c)
if [[ $coc -gt $cof ]]
then
lin=$j
cof=$coc
con=$i
echo "======="
done
echo -e "Line number $lin Contains $cof characters in the content\n$con"
To check whether input is number or not
if input is number then it should number is even or not
```

```
ון אוו =~ ינט-שן+# ]]
then
if [[ $n%2 -eq 0 ]]
then
echo "Number $n is even"
echo "Number $n is odd"
else
echo "Invalid input"
[root@praveentechnoligies ~]# sh testkk.sh
Enter the input
4
Invalid input
[root@praveentechnoligies ~]# vim testkk.sh
[root@praveentechnoligies ~]# sh testkk.sh
Enter the input
100
Number 100 is even
[root@praveentechnoligies ~]# sh testkk.sh
Enter the input
Number 4 is even
[root@praveentechnoligies ~]# sh testkk.sh
Enter the input
22
Number 22 is even
[root@praveentechnoligies ~]# sh testkk.sh
Enter the input
[root@praveentechnoligies ~]# vim testkk.sh
[root@praveentechnoligies ~]# sh testkk.sh
Enter the input
praveen
Invalid input
[root@praveentechnoligies ~]#
#!/bin/bash
for i in 10 20 30 45 78 praveen
if [[ $i = ^{0.9}+$]
then
if [[ $i%2 -ne 0 ]]
echo "Number $i is odd"
elif [[ $i%2 -eq 0 ]]
then
echo "Number $i is even"
fi
else
echo "Invalid input"
```

```
Number 10 is even
Number 20 is even
Number 30 is even
Number 45 is odd
Number 78 is even
Invalid input
#!/bin/bash
for ((i=1;i<=200;i++))
do
i=\$((\$i+3))
echo $i
done
Increment number by 4.
[root@praveentechnoligies ~]# sh fortest22.sh |more
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
Cut command is used to seperate with delimitter
[root@praveentechnoligies ~]# echo "praveen:ajay:san"
praveen:ajay:san
Here ":" is seperator
[root@praveentechnoligies ~]# echo "praveen:ajay:san" |cut -d ":" -f1
praveen
-f1 ==> first field
[root@praveentechnoligies ~]# echo "praveen:ajay:san" |cut -d ":" -f2
ajay
-f2 ===> second field
[root@praveentechnoligies ~]# echo "praveen:ajay:san" |cut -d ":" -f3
san
```

```
10:ajay:san
20:kiran:abhi
50:besant:niit
Condition display first and third column if first column is greater than 15
#!/bin/bash
for i in $(cat file.txt)
do
firscolumn=$(echo $i|cut -d ":" -f1)
if [[ $firscolumn -gt 15 ]]
then
thirdcolumn=$(echo $i|cut -d ":" -f3)
echo "$firscolumn $thirdcolumn"
fi
done
output
[root@praveentechnoligies ~]# sh test25.sh
50 niit
cat file2.txt
praveen:ajay:san
ajay:kiran:praveen
besant:san:praveen:niit
#!/bin/bash
echo "Enter the field number"
read spenum
for i in $(cat file2.txt)
filerange=$(echo $i|cut -d ":" -f$spenum)
#secon=$(echo $i|cut -d ":" -f2)
#thitd=$(echo $i|cut -d ":" -f3)
#firt=$(echo $i|cut -d ":" -f4)
if [[ $filerange == "praveen" ]]
then
echo "Praveen exsists in $spenum filed"
echo $i
fi
done
output
[root@praveentechnologies Weekendlinux]# sh conte ftech.sh
Praveen exsists in third field
ajay:kiran:praveen
```

```
[root@praveentechnologies Weekendlinux]# sh conte ftech.sh
Enter the field number
Praveen exsists in 4 filed
hemanth:sunil:vishwananth:praveen:aws
Script used to display the Line where maximum columns or words are present with line number
cat file.txt
ajay:kiran:san
abhi:ajay:kiran:niran
niit:ajay:besant:gspiders:niit:sriram:sampreeth
ajay:kiran:san
joy:fun:besant:bhaskar:ajay
#!/bin/bash
j=0
for i in $(cat file.txt)
do
n=\$((\$n+1))
k=$(echo $i|sed "s/:/ /g"|wc -w)
if [[ $k -gt $j ]]
then
i=$k
line=$i
linenumber=$n
done
echo "Max words present $j in line number $linenumber ===> Line content $line"
output
[root@praveentechnoligies ~]# sh highestwordcount.sh
Max words present 7 in line number 3 ===> Line content niit:ajay:besant:gspiders:niit:sriram:sampreeth
To find all user whose userid greater than 700
#!/bin/bash
for usr in $(cat /etc/passwd)
do
uid=$(echo $usr|cut -d ":" -f3)
username=$(echo $usr|cut -d ":" -f1)
homedir=$(echo $usr|cut -d ":" -f6)
if [[ $uid -gt 700 ]]
then
echo "$uid $username $homedir"
fi
done
```

```
[root@praveentechnoligies ~]# cat > file2.txt
praveen
ajay
san
kiran
praveen ajay san praveen kiran
praveen ajay praveen kiran praveen praveen
[root@praveentechnoligies ~]# sed "s/praveen/besant/g" file2.txt (===> here we replacing praveen with
besant only for displaying purpose buthere is no change in orginal file)
besant
ajay
san
kiran
besant ajay san besant kiran
besant ajay besant kiran besant besant
[root@praveentechnoligies ~]# cat file2.txt ===> No change in file
praveen
ajay
san
kiran
praveen ajay san praveen kiran
praveen ajay praveen kiran praveen praveen
[root@praveentechnoligies ~]# sed "s/praveen/besant/g" file2.txt >file2 sed.txt (==> after replacement
we are saving o/p to file file2 sed.txt but there is no chnage in orginal file)
[root@praveentechnoligies ~]# cat file2.txt
praveen
ajay
san
kiran
praveen ajay san praveen kiran
praveen ajay praveen kiran praveen praveen
[root@praveentechnoligies ~]# cat file2 sed.txt
besant
ajay
san
kiran
besant ajay san besant kiran
besant ajay besant kiran besant besant
Replace all praveen with besant occurs in 5th line
[root@praveentechnoligies ~]# sed "5s/praveen/besant/" file2.txt
praveen
ajay
san
kiran
besant ajay san praveen kiran
praveen ajay praveen kiran praveen praveen
```

14 of 21 2/8/25, 11:33

Replace all praveen with besant in all lines in file

```
san
kiran
besant ajay san praveen kiran
besant ajay praveen kiran praveen praveen
Replace second occurence of praven with besant only in 5th line
[root@praveentechnoligies ~]# sed "5s/praveen/besant/2" file2.txt
praveen
ajay
san
kiran
praveen ajay san besant kiran
praveen ajay praveen kiran praveen praveen
Replace second occurence of praven with besant only in all lines
[root@praveentechnoligies ~]# sed "s/praveen/besant/2" file2.txt
praveen
ajay
san
kiran
praveen ajay san besant kiran
praveen ajay besant kiran praveen praveen
[root@praveentechnoligies ~]#
Replace all praveen from 2nd occurence in 6th file.
[root@praveentechnoligies ~]# sed "6s/praveen/besant/2g" file2.txt
praveen
ajay
san
kiran
praveen ajay san praveen kiran
praveen ajay besant kiran besant besant
[root@praveentechnoligies ~]#
#!/bin/bash
echo "Enter the field number"
read fe
echo "Enter the content to be checked"
read con1
linenumber=0
for con in $(cat f1.txt)
linenumber=$(($linenumber+1))
filed con=$(echo $con|cut -d ":" -f$fe)
if [[ $filed con == $con1 ]]
then
echo "$con Line number is $linenumber"
#linenumber=$(($linenumber+1))
fi
done
cat f1.txt
praveen:ajay:sunil
```

\leftarrow

shellscriptclass kıran:tan:praveen:san hari:kiran:san:praveen:niit output [root@praveentechnologies script]# sh testscript.sh Enter the field number Enter the content to be checked sunil sriram:sunil:praveen Line number is 3 ajay:sunil:besant Line number is 4 .-----[root@praveentechnoligies ~]# cat file2.txt praveen ajay san kiran praveen ajay san praveen kiran praveen ajay praveen kiran praveen praveen Delete line where praveen exsists just for displaying there wont be any change in orginal file [root@praveentechnoligies ~]# sed '/praveen/d' file2.txt ajay san kiran Delete line where praveen exsists and save o/p to another file [root@praveentechnoligies ~]# sed '/praveen/d' file2.txt >file2 del.txt [root@praveentechnoligies ~]# cat file2 del.txt ajay san kiran To delete the second line [root@praveentechnoligies ~]# sed '2d' file2.txt praveen san kiran praveen ajay san praveen kiran praveen ajay praveen kiran praveen praveen delete from second to fifth line [root@praveentechnoligies ~]# sed '2,5d' file2.txt praveen praveen ajay praveen kiran praveen praveen

To dleete last line in file

```
san
kiran
praveen ajay san praveen kiran
[root@praveentechnoligies ~]#
delete next 2 line when praveen content found.
[root@praveentechnoligies ~]# sed '/praveen/,+2d' file2.txt
kiran
[root@praveentechnoligies ~]#
To delete the line where in whole line only praveen exists
[root@praveentechnoligies ~]# sed '/^praveen$/d' file2.txt
ajay
san
kiran
praveen ajay san praveen kiran
praveen ajay praveen kiran praveen praveen
dlete the line where line starts with praveen
[root@praveentechnoligies ~]# sed '/^praveen/d' file2.txt
ajay
san
kiran
ajay praveen
delete the line where line ends with praveen
[root@praveentechnoligies ~]# sed '/praveen$/d' file2.txt
ajay
san
kiran
praveen ajay san praveen kiran
Here we replace praveen with besant in orginal file itself
sed -i "s/praveen/besant/g" file2.txt
output
[root@praveentechnoligies ~]# cat file2.txt
besant
ajay
san
kiran
besant ajay san besant kiran
besant ajay besant kiran besant besant
now we can see exsisting file praveen got replaced with besant
[root@praveentechnologies script]# cat file55.txt
```

kıran praveen ajay praveen abnı praveen jjj praveen ooo praveen balaji praveen sunil kiran praveen kiran praveen san praveen praveen ajay abhi

[root@praveentechnologies script]# sed "4s/praveen.*/sunil/g" file55.txt praveen praveen ajay praveen ajay praveen ajay praveen san kiran sunil balaji praveen sunil kiran praveen kiran praveen san praveen praveen ajay abhi

In 4th file from praveen content till end of line getting replaced with sunil

praveentechnologies script]# sed "4s/.*/sriram/g" file55.txt praveen praveen ajay praveen ajay praveen san sriram balaji praveen sunil kiran praveen kiran praveen san praveen praveen ajay abhi

Complete 4th line getting replaced with sriram

sed "4s/praveen.*abhi/sunil/" file55.txt
praveen
praveen ajay praveen
ajay praveen san
kiran sunil praveen jjj praveen ooo praveen
balaji praveen sunil kiran praveen
kiran praveen
san praveen
praveen ajay abhi

In 4th line from praveen till abhi getting replaced with sunil

[root@praveentechnologies script]# sed "2s/.*/& sriram sunil/g" file55.txt praveen praveen ajay praveen sriram sunil ajay praveen san kiran praveen ajay praveen abhi praveen jjj praveen ooo praveen balaji praveen sunil kiran praveen kiran praveen san praveen san praveen praveen praveen ajay abhi

Here we are replacing complete second line with adding replaced content with sriram and sunil

```
Here we passing input while running the script
$0 ===> scriptname
$1 ==> first input
$2 ===> second input
$3 ===> Third input
$# ====> Total Number of input passed
#!/bin/bash
echo "Scriptname is $0"
echo "First input is $1"
echo "Second input is $2"
echo "Third input is $3"
echo "Total Number of input passed is $#"
a=$1
b=$2
c = $3
d=$(($a+$b+$c))
echo "Sum of Input $a and $b and $c is $d"
output
t@praveentechnoligies ~]# sh test333.sh 100 200 1000
Scriptname is test333.sh
First input is 100
Second input is 200
Third input is 1000
Total Number of input passed is 3
Sum of Input 100 and 200 and 1000 is 1300
[root@praveentechnoligies ~]#
______
To fnd which column string exists
#!/bin/bash
IFS=$'\n'
lin=0
echo "Enter the content to be checked"
read con
for i in $(cat file.txt)
do
lin=$(($lin+1))
cow=$(echo $i |wc -w)
for ((j=1;j<=$cow;j++))
do
contc=$(echo $i | cut -d " " -f$j)
if [[ $contc == $con ]]
then
echo "Content $con present in field $j in line number $lin"
echo "Content $con not present in field $i in line number $lin"
fi
done
done
```

```
101 proces III IIIelox uici
do
col=$(ps -eaf |grep $proces |wc -l)
if [[ $col -gt 1 ]]
then
echo "Process $proces is running and below are process details"
ps -eaf | grep $proces
echo -e "Enter yes to stop process"
read opt
if [[ $opt == "yes" ]]
then
echo "User confirmed to kill process $proces"
pkill $proces
col pos kill=$(ps -eaf |grep $proces|wc -l)
if [[$col pos kill-eq 1]]
then
echo "Process $proces got killed successfully post user confirmation"
echo "Process $proces not killed successfully Now process need to kill forcefully based on user
confirmation"
read opt1
if [[ $opt1 == "yes" ]]
then
pkill -9 $proces
colw=$(ps -eaf |grep $proces|wc -l)
if [[ $colw -eq 1 ]]
then
echo "Perocess $proces got killed forcefully"
else
echo "Process $proces not killed "
fi
fi
fi
echo "User not confirmed to kill the process $proces"
fi
else
echo "Process $proces is not running"
echo "=======End of details of process $proces===========
done
______
How to check service is running or not
#!/bin/bash
for i in "crond" "vsftpd"
col=$(service $i status |grep "running"|wc -l)
if [[ $col -gt 0 ]]
then
echo "Service $i is running"
echo "Service $i is not running"
echo "Enter 'yes' to start service $i"
read se
```

```
service $i start

cos=$(service $i status |grep "running"|wc -l)

if [[ $cos -gt 0 ]]

then

echo "Service $i started successfully"

else

echo "Service $i not started due to permission issue or any others"

fi

else

echo "User not confirmed to start service $i"

fi

fi

done
```