

Practical 12

SHELL SCRIPTING

Program 1:

Code:

```
[root@localhost Scripting]# vi prog1

#!/bin/bash
if [ -d $HOME ] && [ $HOME/testing ]
then
echo "The file exists and you can write to it"
else
echo "I can't write to the file"
fi
```

Output:

```
[root@localhost Scripting]# chmod u+x prog1
[root@localhost Scripting]# bash prog1
The file exists and you can write to it
```

Program 2:

Code:

```
[root@localhost Scripting]# vi prog2

#!/bin/bash
val1=10
val2=11
if [[ $val1 -gt 5 ]]
then
echo "The test value $val1 is greater than 5"
fi
if [[ $val1 -eq $val2 ]]
then
echo "The values are equal"
else
echo "The values are not equal"
fi
```

Output:

```
[root@localhost Scripting]# chmod u+x prog2
[root@localhost Scripting]# bash prog2
The test value 10 is greater than 5
The values are not equal
```

Program 3:

Code:

```
[root@localhost Scripting]# vi prog3

v1=baseball
v2=hockey
if [[ $v1 > $v2 ]]
then
echo "$v1 is greater than $v2"
else
echo "$v1 is shorter than $v2"
fi
```

Output:

```
[root@localhost Scripting]# chmod u+x prog3
[root@localhost Scripting]# bash prog3
baseball is shorter than hockey
```

Program 4:

Code:

```
[root@localhost Scripting]# vi prog4
```

```
echo "Enter filename:"
read fname
if test -f $fname
then
echo The file exists
else
echo File with the name $fname does not exists
fi
```

Output:

```
[root@localhost Scripting]# chmod u+x prog4
[root@localhost Scripting]# bash prog4
Enter filename:
prog2
The file exists
[root@localhost Scripting]# bash prog4
Enter filename:
prog8
File with the name prog8 does not exists
```

Program 5:

Code:

```
[root@localhost Scripting]# vi prog5
```

```
echo Enter filename:
read f
if test -w $f
then
echo "Type Text to append. To stop press Ctrl+D"
cat >> $f
else
echo "The file has no write permission"
fi
```

Output:

```
[root@localhost Scripting]# chmod u+x prog5
[root@localhost Scripting]# bash prog5
Enter filename:
demo.txt
The file has no write permission
[root@localhost Scripting]# bash prog5
Enter filename:
new.txt
Type Text to append. To stop press Ctrl+D
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```

Program 6:

Code:

```
[root@localhost Scripting]# vi prog6
```

```
echo Enter 2 strings:
read s1 s2
if [[ $s1 = $s2 ]]
then
echo Strings are equal
else
echo Strings are not same
fi
```

Output:

```
[root@localhost Scripting]# chmod u+x prog6
[root@localhost Scripting]# bash prog6
Enter 2 strings:
model model
Strings are equal
[root@localhost Scripting]# bash prog6
Enter 2 strings:
model ledom
Strings are not same
```

Program 7:

Code:

```
[root@localhost Scripting]# vi prog7
```

```
echo "Enter any number: "  
read n  
if test $n -gt 0  
then  
echo $n is Positive  
else  
echo $n is Negative  
fi
```

Output:

```
[root@localhost Scripting]# chmod u+x prog7  
[root@localhost Scripting]# bash prog7  
Enter any number:  
7  
7 is Positive  
[root@localhost Scripting]# bash prog7  
Enter any number:  
-3  
-3 is Negative
```

Program 8:

Code:

```
[root@localhost Scripting]# vi prog8
```

```
var1=$((1+5))  
echo $var1  
var2=$((var1*2))  
echo $var2
```

Output:

```
[root@localhost Scripting]# chmod u+x prog8  
[root@localhost Scripting]# bash prog8  
6  
12
```

Program 9:

Code:

```
[root@localhost Scripting]# vi prog9
```

```
d=`date`  
echo The Date and Time are $d
```

Output:

```
[root@localhost Scripting]# chmod u+x prog9  
[root@localhost Scripting]# bash prog9  
The Date and Time are Fri Oct 4 00:51:17 IST 2024
```

Program 10:

Code:

```
[root@localhost Scripting]# vi prog10
```

```
v1=10  
v2=$v1  
echo "Value of value2 is $v2"
```

Output:

```
[root@localhost Scripting]# chmod u+x prog10  
[root@localhost Scripting]# bash prog10  
Value of value2 is 10
```

Program 11:

Code:

```
[root@localhost Scripting]# vi prog11
```

```
val1=10  
if (( $val1**2 > 90 ))  
then  
    (( val2 = $val1**2 ))  
    echo "The Square of $val1 is $val2"  
fi
```

Output:

```
[root@localhost Scripting]# chmod u+x prog11  
[root@localhost Scripting]# bash prog11  
The Square of 10 is 100
```

Program 12:

Code:

```
[root@localhost Scripting]# vi prog12  
  
if [[ $USER = s* ]]  
then  
    echo "Hello $USER"  
else  
    echo "Sorry, I didn't know you"  
fi
```

Output:

```
[root@localhost Scripting]# bash prog12  
Hello student
```

Program 13:

Code:

```
[root@localhost Scripting]# vi prog13  
  
echo Enter the day number:  
read n  
case $n in  
1)echo Sunday;;  
2)echo Monday;;  
3)echo Tuesday;;  
4)echo Wednesday;;  
5)echo Thursday;;  
6)echo Friday;;  
7)echo Saturday;;  
)echo Enter the number between 1 to 7;;  
esac
```

Output:

```
[root@localhost Scripting]# chmod u+x prog13  
[root@localhost Scripting]# bash prog13  
Enter the day number:  
7  
Saturday
```

Program 14:

Code:

```
[root@localhost Scripting]# vi prog14
```

```
echo Enter number for month of the year:
read n
case $n in
1)echo January;;
2)echo Februray;;
3)echo March;;
4)echo April;;
5)echo May;;
6)echo June;;
7)echo July;;
8)echo August;;
9)echo September;;
10)echo October;;
11)echo November;;
12)echo December;;
*)echo Enter number between 1 to 12;;
esac
```

Output:

```
[root@localhost Scripting]# chmod u+x prog14
[root@localhost Scripting]# bash prog14
Enter number for month of the year:
7
July
```

Program 15:

Code:

```
[root@localhost Scripting]# vi prog15
```

```
echo Enter the word:
read st
case $st in
[aeiou]*)echo The word begins with Vowel;;
[0-9]*)echo The word begins with a digit;;
*[0-7])echo The word ends with a digit;;
????)echo The word entered is 4 lettered word;;
*)echo The word entered either starts with a consonants or incorrect input;;
esac
```

Output:

```
[root@localhost Scripting]# chmod u+x prog15
[root@localhost Scripting]# bash prog15
Enter the word:
student21
The word ends with a digit
```

Program 16:

Code:

```
[root@localhost Scripting]# vi prog16

echo 1 To see the contents of /etc/passwd
echo 2 To see lists of users
echo 3 To see present working directory
echo 4 Exit
echo Enter your choice:
read h
case $h in
1)cat /etc/passwd;;
2)ls /home;;
3)pwd;;
4)exit;;
*)echo Enter choice as 1,2,3 or 4;;
esac
```

Output:

```
[root@localhost Scripting]# chmod u+x prog16
[root@localhost Scripting]# ./prog16
1 To see the contents of /etc/passwd
2 To see lists of users
3 To see present working directory
4 Exit
Enter your choice:
3
/root/Scripting
```

Program 17:

Code:

```
[root@localhost Scripting]# vi prog17
```

```
sum=0
for i in 1 2 3 4 5 6 7 8 9 10
do
sum=`expr $sum + $i`
echo $i
done
echo The sum is: $sum
```

Output:

```
[root@localhost Scripting]# chmod u+x prog17
[root@localhost Scripting]# ./prog17
1
2
3
4
5
6
7
8
9
10
The sum is: 55
```

Program 18:

Code:

```
[root@localhost Scripting]# vi prog18

for st in Maharashtra Gujarat Punjab Rajasthan Karnataka
do
echo The next state is $st
done
```

Output:

```
[root@localhost Scripting]# chmod u+x prog18
[root@localhost Scripting]# ./prog18
The next state is Maharashtra
The next state is Gujarat
The next state is Punjab
The next state is Rajasthan
The next state is Karnataka
```

Program 19:Code:

```
[root@localhost Scripting]# vi prog19
```

```
for (( i=1;i<=5;i++ ))
do
echo "The next number is $i"
done
```

Output:

```
[root@localhost Scripting]# chmod u+x prog19
[root@localhost Scripting]# ./prog19
The next number is 1
The next number is 2
The next number is 3
The next number is 4
The next number is 5
```

Program 20:Code:

```
[root@localhost Scripting]# vi prog20
```

```
for (( a=1,b=5;a<=5;a++,b-- ))
do
echo "$a - $b"
done
```

Output:

```
[root@localhost Scripting]# chmod u+x prog20
[root@localhost Scripting]# ./prog20
1 - 5
2 - 4
3 - 3
4 - 2
5 - 1
```

Program 21:Code:

```
[root@localhost Scripting]# vi prog21
```

```
echo Enter Number:
read n
i=1
sum=0
while [ $i -le $n ]
do
sum=`expr $sum + $i`
i=`expr $i + 1`
done
echo "Sum = $sum"
```

Output:

```
[root@localhost Scripting]# chmod u+x prog21
[root@localhost Scripting]# ./prog21
Enter Number:
5
Sum = 15
```

Program 22:

Code:

```
[root@localhost Scripting]# vi prog22
```

```
var1=100
until [ $var1 -eq 0 ]
do
echo $var1
var1=$(( var1 - 25 ))
done
```

Output:

```
[root@localhost Scripting]# chmod u+x prog22
[root@localhost Scripting]# bash prog22
100
75
50
25
```

Program 23:

Code:

```
[root@localhost Scripting]# vi prog23
```

```
echo Enter Number:
read n
i=1
sum=0
until [ $i -gt $n ]
do
sum=`expr $sum + $i`
i=`expr $i + 1`
done
echo Sum: $sum
```

Output:

```
[root@localhost Scripting]# chmod u+x prog23
[root@localhost Scripting]# bash prog23
Enter Number:
5
Sum: 15
```
