PROGRAM 1

SHELL SCRIPT

```
1 #!/bin/bash
2
3 echo "The current working directory is $(pwd)"
4 echo "Today is `date` "
```

OUTPUT

```
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell1.sh
The current working directory is /home/mnakshi/OS_Lab/Lab3-Shell-script
Today is Monday 31 May 2021 08:21:36 PM IST
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$
```

PROGRAM 2

SHELL SCRIPT

```
1 #!/bin/bash
2
3 echo "Enter first number: "
4 read a
5 echo "Enter second number: "
6 read b
7 echo "The sum is $((a + b))"
```

OUTPUT

```
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell2.sh
Enter first number:
20
Enter second number:
30
The sum is 50
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell2.sh
Enter first number:
0
Enter second number:
-10
The sum is -10
```

PROGRAM 3

SHELL SCRIPT

```
1 #!/bin/bash
2
3 echo Total no of arguments passed = $#
4 echo The arguments are : $*
```

OUTPUT

```
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell3.sh
Total no of arguments passed = 0
The arguments are :
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell3.sh Meenakshi
Total no of arguments passed = 1
The arguments are : Meenakshi
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$
```

PROGRAM 4

SHELL SCRIPT

```
1 #!/bin/bash
2
3 if [ $# -eq 3 ]
4         then
5                 echo "3 arguments are passed"
6 else
7         echo "No of arguments is not 3"
8 fi
```

OUTPUT

```
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell4.sh
No of arguments is not 3
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell4.sh 3
No of arguments is not 3
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell4.sh a b
No of arguments is not 3
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell4.sh a b c
3 arguments are passed
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell4.sh a b c d
No of arguments is not 3
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$
```

PROGRAM 5

SHELL SCRIPT

```
1 #!/bin/bash
2
3 if [ $# != 2 ]
4         then
5                 echo No of strings must be 2
6 else
7         test $1 = $2 && echo "Strungs are equal" || echo "Strings are not equal"
8 fi
```

OUTPUT

```
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell5.sh
No of strings must be 2
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell5.sh meenu ammu
Strings are not equal
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell5.sh meenu meenu
Strungs are equal
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell5.sh meenu meenu 3
No of strings must be 2
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$
```

PROGRAM 6

SHELL SCRIPT

```
#!/bin/bash

if [ $# = 1 ]
        then
                [ -f $! ] && echo $1 exists || echo $1 doesn\'t exist
elif [ $# = 2 ]
        then
                if [ $1 == $2 ]
                        then
                         echo "Both are same files"
                         exit
                fi
                [ -f $1 ] && echo `mv $1 $2` $1 successfully renamed to $2 || echo $1 doesn\'t exist
else
        echo No of parameters = $# \(Should be 1 or 2\)
fi
```

OUTPUT

```
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell6.sh
No of parameters = 0 (Should be 1 or 2)
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell6.sh a b
a doesn't exist
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell6.sh a
a exists
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ ls
'input shell1.png'  'input shell5.png'   'output shell4.png'   shell3.sh
'input shell2.png'  'input shell6.png'   'output shell5.png'   shell4.sh
'input shell3.png'  'output shell2.png'   shell1.sh           shell5.sh
'input shell4.png'  'output shell3.png'   shell2.sh           shell6.sh
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ touch sample1.txt
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ ls
'input shell1.png'  'input shell6.png'    sample1.txt   shell5.sh
'input shell2.png'  'output shell2.png'   shell1.sh     shell6.sh
'input shell3.png'  'output shell3.png'   shell2.sh
'input shell4.png'  'output shell4.png'   shell3.sh
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell6.sh sample1.txt sample1.txt
Both are same files
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell6.sh sample1.txt sample.txt
sample1.txt successfully renamed to sample.txt
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ ls
'input shell1.png'  'input shell3.png'  'input shell5.png'  'output shell2.png'  'output shell4.png'   sample.txt   shell2.sh   shell4.sh   shell6.sh
'input shell2.png'  'input shell4.png'  'input shell6.png'  'output shell3.png'  'output shell5.png'   shell1.sh    shell3.sh   shell5.sh
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$
```

PROGRAM 7

SHELL SCRIPT

```
#!/bin/bash

if [ $# != 2 ]
        then
                echo No of strings must be 2
else
        test $1 = $2 && echo "Strungs are equal" || echo "Strings are not equal"
fi
```

OUTPUT

```
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell7.sh
Enter filename
a
a doesn't exist
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell7.sh
Enter filename
sample.txt
Enter string to be searched
meenakshi
meenakshi fount in sample.txt
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell7.sh
Enter filename
sample.txt
Enter string to be searched
pavithra
pavithra not found in sample.txt
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$
```

PROGRAM 8

SHELL SCRIPT

```
#!/bin/bash

echo Enter file 1
read f1
if [ -f $f1 ]; then
        echo Enter file 2
        read f2
        `cat >> $f2 $f1`
        echo $f1 successfully copied to $f2
else
        echo $f1 doesn\'t exist
fi
```

OUTPUT

```
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ cat > f1
Hello World
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ cat > f2
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ ls
 f1  'input shell1.png'  'input shell3.png'  'input shell5.png'  'input shell8.png'   'output shell3.png'  'output shell5.png'  'output shell7.png'   shell1.sh  shell3.sh  shell5.sh  shell7.sh
 f2  'input shell2.png'  'input shell4.png'  'input shell6.png'  'output shell2.png'  'output shell4.png'  'output shell6.png'   sample.txt         shell2.sh  shell4.sh  shell6.sh  shell8.sh
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell8.sh
Enter file 1
f1
Enter file 2
f2
f1 successfully copied to f2
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$
```

PROGRAM 9

SHELL SCRIPT

```
#!/bin/bash

if [ $# != 3 ]; then
        echo Less arguments given
        exit
fi
`head $1 | cat > $3`
`head $1 | cat >> $3`
echo Successfull copied first 10 lines form $1 and $2 to $3`
```

OUTPUT

```
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell9.sh file1 file2 file3
Successfull copied first 10 lines form file1 and file2 to file3
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ cat file3
Hello
everyone
nice
to
meet
you
stay
safe
stay
indoors
Hello
everyone
nice
to
meet
you
stay
safe
stay
indoors
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$
```

PROGRAM 10

SHELL SCRIPT

```
#!/bin/bash

echo There are `ls -a | wc -l` files in `pwd`
echo
echo Enter the beginning character
read a
echo
num=`ls -a | grep -c ^$a`
echo There are $num files beginning with $a
if [ $num = 0 ] && exit
echo
echo The files are :
echo `ls -a | grep ^$a`
```

OUTPUT

```
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ ls
 f1                    'input shell4.png'     'output shell6.png'    shell1.sh
 f2                    'input shell5.png'     'output shell7.png'    shell2.sh
 file1                 'input shell6.png'     'output shell8.png'    shell3.sh
 file2                 'input shell8.png'     'output shell9.png'    shell4.sh
 file3                 'input shell9.png'      sample1.txt           shell5.sh
'input shell10.png'   'output shell11.png'     sample.txt            shell6.sh
'input shell11.png'   'output shell12.png'     school1.dat           shell7.sh
'input shell12.png'   'output shell13.png'     school.dat            shell8.sh
'input shell13.png'   'output shell2.png'      shell10.sh            shell9.sh
'input shell1.png'    'output shell3.png'      shell11.sh
'input shell2.png'    'output shell4.png'      shell12.sh
'input shell3.png'    'output shell5.png'      shell13.sh
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell10.sh
There are 47 files in /home/mnakshi/OS_Lab/Lab3-Shell-script

Enter the beginning character
f

There are 5 files beginning with f
```

PROGRAM 11

SHELL SCRIPT

```
 1 #!/bin/bash
 2
 3 echo Enter file
 4 read f1
 5
 6 echo Enter new file
 7 read f2
 8
 9 `cat < $f1 | tr 'aeiou' 'AEIOU' | cat > $f2`
10 echo Vowels of $f1 are converted to uppercase and result is stored in $f2
```

OUTPUT

```
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell11.sh
Enter file
sample.txt
Enter new file
sample1.txt
Vowels of sample.txt are converted to uppercase and result is stored in sample1.
txt
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ cat sample1.txt
mEEnAkshI
mIlI
AmEEshA
rEEthU
lEkshmIprIyA
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$
```

PROGRAM 12

SHELL SCRIPT

```
#!/bin/bash

echo Enter name
read name
name2=${name// /} #Without whiespace
echo No of alphabets : ${#name2}
echo Reverse: `echo $name | rev`
```

OUTPUT

```
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell12.sh
Enter name
meenakshi
No of alphabets : 9
Reverse: ihskaneem
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$
```

PROGRAM 13

SHELL SCRIPT

```
#!/bin/bash

echo Enter the DAT file
read fdat1
echo Enter the new DAT file
read fdat2

echo `head -1 $fdat1 | cat > $fdat2` `grep -v NAME $fdat1 | sort -grk 3 | cat >> $fdat2`
echo $fdat1 successfully sorted based on ROLL_NO and copied to $fdat2
```

OUTPUT

```
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ cat > school.dat
ROLL_NO NAME MARKS
1 Uma 50
2 Anu 45
3 Amee 60
4 Meenu 70
5 Lekshmi 69
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell13.sh
Enter the DAT file
school.dat
Enter the new DAT file
school1.dat

school.dat successfully sorted based on ROLL_NO and copied to school1.dat
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ cat school1.dat
ROLL_NO NAME MARKS
4 Meenu 70
5 Lekshmi 69
3 Amee 60
1 Uma 50
2 Anu 45
```

PROGRAM 14

SHELL SCRIPT

```
#!/bin/bash

read -p "Enter n = " n
sum=0
if [ 0 -gt $n ]; then
        echo Negative number entered. Cannot find the sum
        exit
fi

for (( i=1; i<=$n; i++ )) do
        sum=`expr $sum + $i`
done
echo Sum of first $n integers = $sum
```

OUTPUT

```
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell14.sh
Enter n = 10
Sum of first 10 integers = 55
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell14.sh
Enter n = -9
Negative number entered. Cannot find the sum
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell14.sh
Enter n = 0
Sum of first 0 integers = 0
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$
```

PROGRAM 15

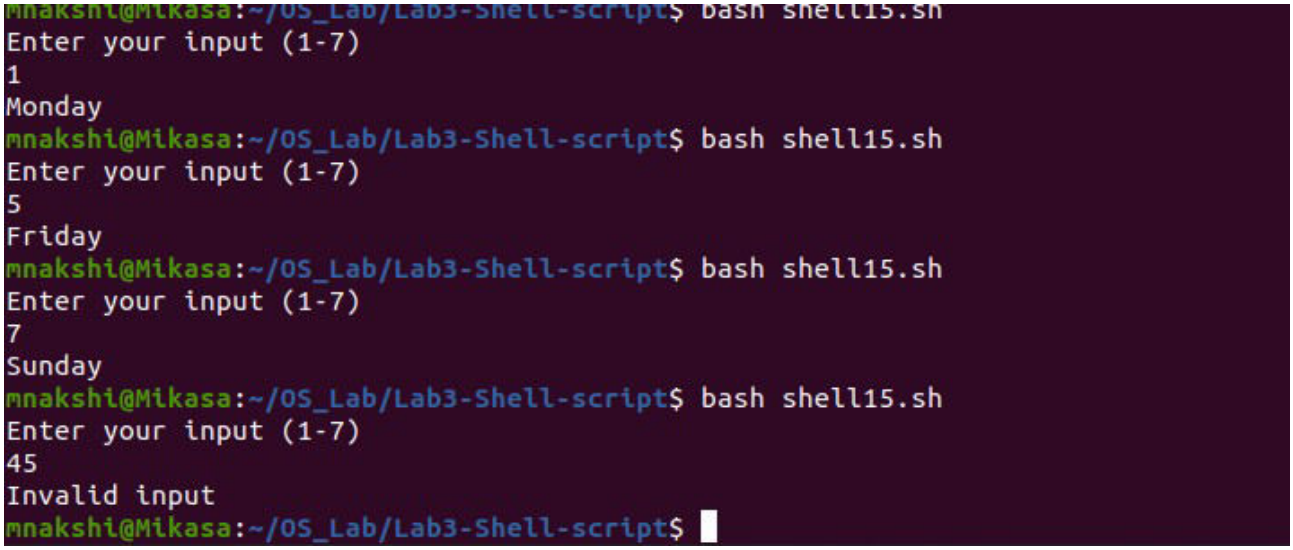
SHELL SCRIPT

```
#!/bin/bash

echo Enter your input \(1-7\)
read n

case $n in
        1)
                echo Monday
                ;;
        2)
                echo Tuesday
                ;;
        3)
                echo Wednesday
                ;;
        4)
                echo Thursday
                ;;
        5)
                echo Friday
                ;;
        6)
                echo Saturday
                ;;
        7)
                echo Sunday
                ;;
        *)
                echo Invalid input
                ;;
esac
```

OUTPUT


mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell15.sh
Enter your input (1-7)
1
Monday
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell15.sh
Enter your input (1-7)
5
Friday
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell15.sh
Enter your input (1-7)
7
Sunday
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$ bash shell15.sh
Enter your input (1-7)
45
Invalid input
mnakshi@Mikasa:~/OS_Lab/Lab3-Shell-script$