Experiment No. 3

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1.Write a shell script program to display the name of the current working directory and date.

Program:

```
#!/bin/bash
pwd
date
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-01.sh
/home/rinoy2002/Desktop/Shell Scripting
Sunday 30 May 2021 03:25:12 PM IST
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```

2.Write a shell script program to perform arithmetic operation on two numbers.

Program:

```
#!/bin/bash
a=20
b=10
sum=`expr $a + $b`
diff=`expr $a - $b`
product=`expr $a \* $b`
division=`expr $a / $b`
echo " Sum : $sum"
echo " Difference : $diff"
echo " Product : $product"
echo " Division : $division"
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-02.sh
 Sum : 30
 Difference : 10
 Product : 200
 Division : 2
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```

3.Write a shell script program to pass arguments to the program and display the count of arguments and content.

Program:

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

```
echo "Count of Arguments: $#"
echo $*
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-03.sh
Count of Arguments: 0

rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-03.sh how are you
Count of Arguments: 3
how are you
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```

4.Write a shell script program to test whether 3 arguments are being passed to it.

Program:

```
#!/bin/bash
if [ $# == 3 ]
then
  echo "No. of Arguments is 3"
else
  echo "No. of Arguments is not 3"
fi
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-04.sh
No. of Arguments is not 3
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-04.sh hi hello there
No. of Arguments is 3
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-04.sh hi hello there my nmae
No. of Arguments is not 3
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```

5.Write a shell script program to check whether two strings sent as command line arguments are same or not using test command.

Program:

```
#!/bin/bash
test $1 = $2 && echo "both strings are same" || echo "both strings are different"
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-05.sh hello there
both strings are different
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-05.sh hello hello
both strings are same
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```

6(a).Let argument be a filename. Write a shell script program to check whether the file exist or not.

Program:

```
#!/bin/bash
FILE=$1
if [ -e "$FILE"  ]
then
  echo "file found"
else
  echo "file not found"
fi
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-06a.sh test
file found
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-06a.sh hello
file not found
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-06a.sh rinoy
file found
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```

6(b).Modify the above program to rename a filename with another name passed as argument, Also check number of parameters being passed.

Program:

```
#!/bin/bash
FILE=$1
if [ -e "$FILE"  ]
then
  echo "file found"
  mv $1 $2
  echo "file renamed"
else
  echo "file not found"
fi
echo "No. of Arguments is $#"
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-06b.sh rinoy royal
file found
file renamed
No. of Arguments is 2
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ rm royal
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-06b.sh royal rinoy
file not found
No. of Arguments is 2
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```

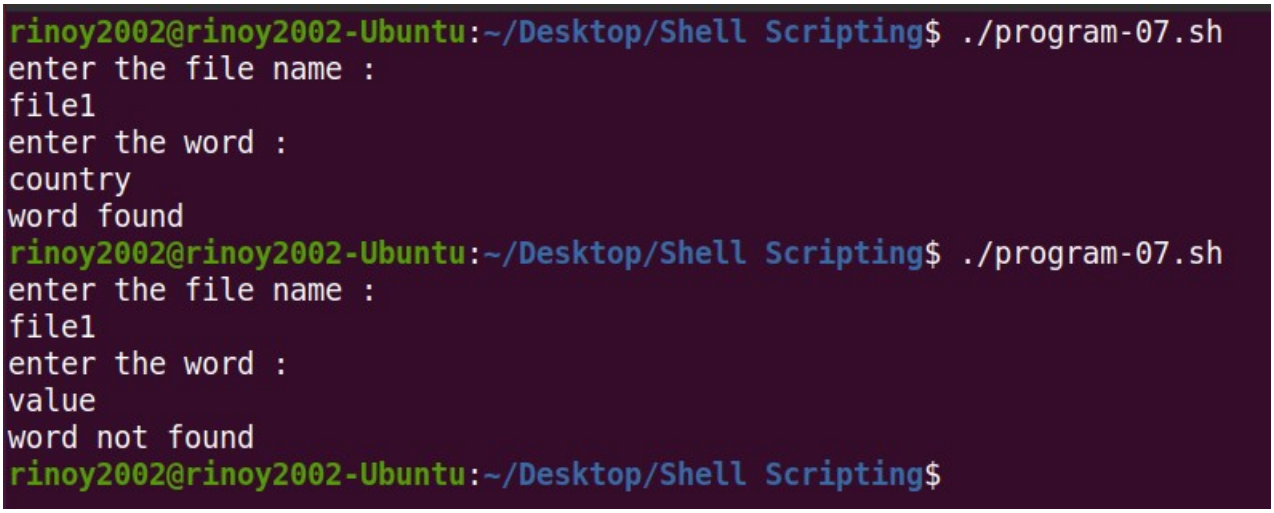
7.Write a shell script program totest whether a string is present in a file or not.

Program

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

```
echo "enter the file name :"
read file
if [ -e "$file" ]
then
  echo "enter the word :"
  read word
  isfound=$(grep -cw $word $file)
  if [ $isfound -gt 0 ]
  then
    echo "word found"
  else
    echo "word not found"
  fi
else
  echo "file not found"
fi
```

Output:



8.Write a shell script program to copy content of file1 to file 2. If file2 exists then append the content of file1 to its original content.

Program:

```
#!/bin/bash
if [ -e "file1" ]
then
  if [ -e "file2" ]
  then
    cat file1>>file2
    echo "file2 exists,file1 appended to file2"
  else
    cp file1 file2
    echo "file2 doesn't exists,file1 copied to file2"
  fi
fi
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-08.sh
file2 exists,file1 appended to file2
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ rm file2
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-08.sh
file2 doesn't exists,file1 copied to file2
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ cat file1
I love my country
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ cat file2
I love my country
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```

9.Write a shell script program that take first 10 lines from first file and rest 10lines from second file and move them in a third file. The filename will be sent as command line arguments.

Program:

```
#!/bin/bash
if [ -e "firstfile" ] && [ -e "secondfile" ]
then
   head firstfile>>$1
   head secondfile>>$1
   cat $1
 else
   echo "file not found"
fi
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-09.sh newfile
Contrary to popular belief, Lorem Ipsum is not simply random t
ext. It has roots in a piece of classical Latin literature from
45 BC, making it over 2000 years old. Richard McClintock, a Latin
professor at Hampden-Sydney College in Virginia, looked up one of
the more obscure Latin words, consectetur, from a Lorem Ipsum
passage, and going through the cites of the word in classical
literature, discovered the undoubtable source. Lorem Ipsum comes
from sections 1.10.32 and 1.10.33 of "de Finibus Bonorum et
Malorum" (The Extremes of Good and Evil) by Cicero, written in 45
BC. This book is a treatise on the theory of ethics, very popular
"On the other hand, we denounce with righteous indignation and
dislike men who are so beguiled and demoralized by the charms of
pleasure of the moment, so blinded by desire, that they cannot
foresee the pain and trouble that are bound to ensue; and equal
blame belongs to those who fail in their duty through weakness of
will, which is the same as saying through shrinking from toil and
pain. These cases are perfectly simple and easy to distinguish.
In a free hour, when our power of choice is untrammelled and when
nothing prevents our being able to do what we like best, every
pleasure is to be welcomed and every pain avoided. But in c
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ wc -l newfile
20 newfile
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```

10.Write a shell script program to show number of files in the current directory beginning with a specified character.

Program:

```
#!/bin/bash
echo "matches found are :"
find -name "${1}*" -type f | wc -l
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-10.sh  t
matches found are :
1
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-10.sh  f
matches found are :
3
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-10.sh  r
matches found are :
0
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```

11.Write a shell script program to read a line from a file and store them into another file after converting all the vowels from first file into uppercase.

Program:

```
#!/bin/bash
head -n1 test | tr 'aeiou' 'AEIOU' > output
cat output
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-11.sh
My nAmE Is RInOy
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-11.sh
IndIA Is my cOUntry
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```

12.Write a shell script program that accept the name of the user and prints the entire name in reverse and also print the length of the entire name

Program:

```
#!/bin/bash
echo "enter the name :"
read name
echo "reverse : "
echo $name | rev
echo "length : "
echo ${#name}
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-12.sh
enter the name :
rinoy
reverse :
yonir
length :
5
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-12.sh
enter the name :
kuriyakose
reverse :
esokayiruk
length :
10
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```

13.Consider a file school.dat with the following fields: roll no, name and marks. Write a shell script program to sort the file in descending order of marks

Program:

```
#!/bin/bash
if [ -e "school.dat"]
then
  cat school.dat | sort -r -k3
else
  echo "file not found"
fi
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ cat school.dat
Roll No    Name       Marks
 1         Rinoy       99
 2         Kuriyakose  89
 3         Reena       91
 4         Royal       78
 5         Tejas       94


rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-13.sh
Roll No    Name       Marks
 1         Rinoy       99
 5         Tejas       94
 3         Reena       91
 2         Kuriyakose  89
 4         Royal       78


rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```

14.Write a shell script program to display sum of first n numbers

Program:

```
#!/bin/bash
echo "enter value n :"
read n
for ((i=1;i<=n;i++))
do
  sum=$((sum + i))
done
echo "sum : $sum"
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-14.sh
enter value n :
10
sum : 55
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-14.sh
enter value n :
2
sum : 3
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-14.sh
enter value n :
50
sum : 1275
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```

15.Menu driven program to display the day when inputting 1 to 7

Program:

```
#!/bin/bash
echo "   MENU  "
echo "1.Sunday"
echo "2.Monday"
echo "3.Tuesday"
echo "4.Wednesday"
echo "5.Thursday"
echo "6.Friday"
echo "7.Saturday"
echo "enter the choice : "
read option
case $option in
  1)
    echo "Sunday"
    ;;

  2)
    echo "Monday"
    ;;
```

```
  3)
    echo "Tuesday"
    ;;

  4)
    echo "Wednesday"
    ;;
  5)
    echo "Thursday"
    ;;
  6)
    echo "Friday"
    ;;
  7)
    echo "Saturday"
    ;;
  *)
    echo "Invalid Input"
    ;;
esac
```

Output:

```
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-15.sh
   MENU
1.Sunday
2.Monday
3.Tuesday
4.Wednesday
5.Thursday
6.Friday
7.Saturday
enter the choice :
3
Tuesday
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$ ./program-15.sh
   MENU
1.Sunday
2.Monday
3.Tuesday
4.Wednesday
5.Thursday
6.Friday
7.Saturday
enter the choice :
6
Friday
rinoy2002@rinoy2002-Ubuntu:~/Desktop/Shell Scripting$
```