ASSIGNMENT

-Shell Scripting Lab Assignment

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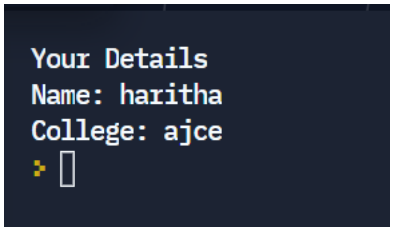
Shell Scripting Lab Assignments

1. Write a shell script to ask your name, and college name and print it on the screen.

```
#!/bin/bash
echo " Enter Details ”
echo "******************"
echo Enter your NAME
read NAME
echo Enter your College name
read college
clear
echo Your Details
echo Name: $NAME
echo College: $college
```

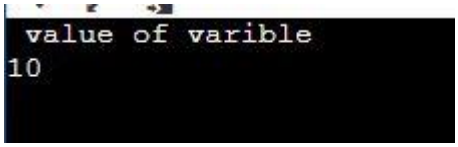


2. Write a shell script to set a value for a variable and display it on command

line interface.

```
#!/bin/bash

echo " value of varible "
```

```
x=10

echo "$x"
```



3. Write a shell script to perform addition, substation, multiplication, division with two numbers that is accepted from user.

```
#!/bin/bash

echo "arithemetic opertations"


echo "Enter a number"

read x

echo "Enter another number"

read y

echo "Select operation"

echo "\n1.Addition\n2.Substraction\n3.Multiplication\n4.Division"

read op

case "$op" in

"1") echo "x+y="$(($x+$y));;

"2") echo "x-y="$(($x-$y));;

"3") echo "x*y="$(($x*$y));;

"4") echo "x/y="$(($x/$y));;

esac
```

```
user@user-VirtualBox:~$ gedit
^C
user@user-VirtualBox:~$ chmod u+x bash2.txt
user@user-VirtualBox:~$ ./bash2.txt
arithemetic opertations
Enter a number
5
Enter another number
3
Select operation
\n1.Addition\n2.Substraction\n3.Multiplication\n4.Division
1
x+y=8
user@user-VirtualBox:~$
```

4. Write a shell script to check the value of a given number and display whether the number is found or not.

```
#!/bin/bash
echo "Finding a number"
echo "Enter a number"
read a
if [ $a == 5 ]; then
    echo "Number is found ;)"
else
    echo "Number is NOT found !"
fi
```

```
user@user-VirtualBox:~$ chmod u+x bash3.t
user@user-VirtualBox:~$ ./bash3.txt
Finding a number
Enter a number
3
Number is NOT found !
user@user-VirtualBox:~$ ./bash3.txt
Finding a number
Enter a number
5
Number is found ;)
user@user-VirtualBox:~$
```

5. Write a shell script to display current date, calendar.

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

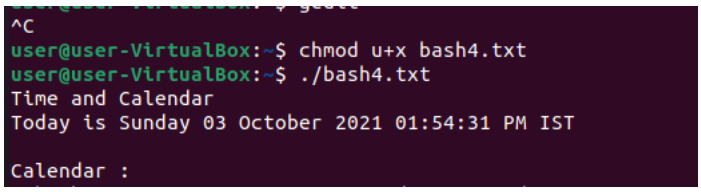
echo "Time and Calendar"

echo "Today is $(date)"

echo ""

echo "Calendar :"

cal



6. Write a shell script to check a number is even or odd.

#!/bin/bash

echo "Even OR Odd"

echo "Enter a number"

read n

x=$(($n%2))

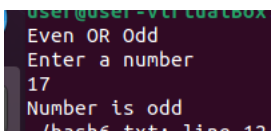
if [$x -eq 0]; then

echo "Number is Even"

else

echo "Number is odd"

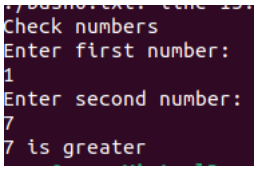
fi



7. Write a shell script to check a number is greater than, less than or equal to another number.

#!/bin/bash

```
echo "Check numbers"
echo "Enter first number:"
read a
echo "Enter second number:"
read b
if [ $a -gt $b ]; then
echo "$a is greater"
elif [ $b -gt $a ];then
echo "$b is greater"
else
echo "Both are Equal"
fi
```



8. Write a shell script to find the sum of first 10 numbers.

```
#!/bin/bash
echo "Sum of Numbers "
t=0
for (( i=1;i<=10;i++ ))
do
t=`expr $t + $i`
done
echo “sum of first 10 numbers = $t”
```

```
user@user-VirtualBox:~$ ./bash8.
Sum of Numbers
“sum of first 10 numbers = 55”
```

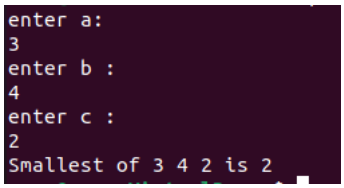
9. Write a shell script to find the sum, the average and the product of the four integers entered.

```
#!/bin/bash
echo  "AVG, SUM & Product of 4 No:"
echo "enter first number: "
read a
echo "Second number: "
read b
echo "Third number: "
read c
echo "Fourth number: "
read d
sum=$(($a + $b + $c + $d))
avg=$(echo $sum / 4 | bc -l )
prod=$(($a * $b * $c * $d))
echo "The sum of these numbers is: " $sum
echo "The average of these numbers is: " $avg
echo "The product of these numbers is: " $prod
```

```
AVG, SUM & Product of 4 No:
enter first number:
67
Second number:
78
Third number:
89
Fourth number:
34
The sum of these numbers is:  268
The average of these numbers is:  67.00000000000000000000
The product of these numbers is:  15813876
```

10.Write a shell script to find the smallest of three numbers.

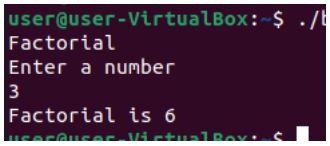
```
echo "enter a: "
read a
echo "enter b : "
read b
echo "enter c : "
read c
s=$a
if [ $b -lt $s ]
then
s=$b
fi
if [ $c -lt $s ]
then
s=$c
fi
echo Smallest of $a $b $c is $s
```



11.Write a shell program to find factorial of given number.

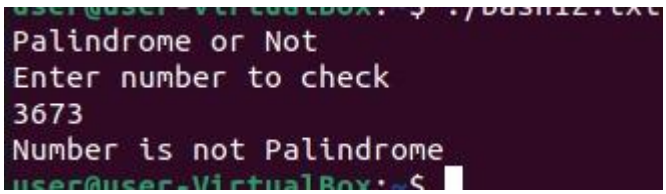
```
#!/bin/bash
echo "Factorial"
echo "Enter a number"
```

```
read num

fact=1

for((i=2;i<=num;i++))

      {

            fact=$((fact * i))  #fact = fact * i

       }

echo "Factorial is $fact"
```



12.Write a shell program to check a number is palindrome or not.

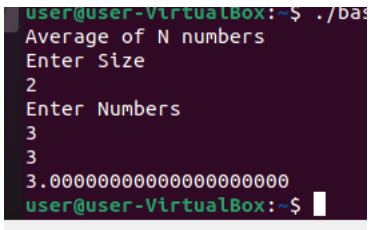
```
#!/bin/bash

echo "Palindrome or Not"

echo "Enter number to check"

read n

rev=$(echo $n | rev)

if [ $n -eq $rev ]; then

    echo "Number is Palindrome"

else

    echo "Number is not Palindrome"

fi
```



13.Write a shell script to find the average of the numbers entered in command

line.

```
#!/bin/bash
echo "Average of N numbers"
echo "Enter Size"
read n
i=1
sum=0
echo "Enter Numbers"
while [ $i -le $n ]
do
  read num
  sum=$((sum + num))
  i=$((i + 1))
done
avg=$(echo $sum / $n | bc -l)
echo $avg
```



14.Write a shell program to find the sum of all the digits in a number.

```
#!/bin/bash
echo "Sum of all digits"
echo "Enter a number:"
```

```
read num
sum=0
while [ $num -gt 0 ]
do
        mod=$((num % 10))
        sum=$((sum + mod))
        num=$((num / 10))
done
echo "Sum of digits is $sum"
```

```
user@user-VirtualBox:~$ chmod u+
user@user-VirtualBox:~$ ./bash14
Sum of all digits
Enter a number:
11
Sum of digits is 2
```

15.Write a shell Script to check whether given year is leap year or not.

```
#!/bin/bash
echo "LEAP YEAR OR NOT"
echo "Enter the year"
read y
a=`expr $y % 4`
b=`expr $y % 100`
c=`expr $y % 400`
if [ $a -eq 0 -a $b -ne 0 -o $c -eq 0 ];
then
echo "$y is leap year"
else
```

```
echo "$y is not leap year"

fi
```

```
user@user-VirtualBox:~$
LEAP YEAR OR NOT
Enter the year
2004
2004 is leap year
user@user-VirtualBox:~$
```