

Program :

```
echo Please enter the no. :  
read a  
b=`expr $a % 2`  
if [ b -eq 0 ]  
then  
echo $a is even.  
else  
echo $a is odd.  
fi
```

Output :

```
~  
"pr_2.sh" 10L, 114B written  
[root@localhost d2]# sh pr_2.sh  
Please enter the no. :  
3  
3 is odd.  
[root@localhost d2]#
```

Q. write a shell script program to print the table of the given number.

Program :

```
echo Please enter the no. to print table :  
read a  
i=1  
echo Table of $a is :  
while [ $i -le 10 ]  
do  
t=`expr $i \* $a`  
echo $a x $i = $t  
i=`expr $i + 1`  
done
```

Q. write a shell script program for addition of two numbers.

Program :

```
~  
echo Please enter the first no. :  
read a  
echo Please enter the second no. :  
read b  
sum=`expr $a + $b`  
echo Sum is $sum  
~
```

Output :

```
~  
"pr_2.sh" 7L, 121B written  
[root@localhost d2]# sh pr_2.sh  
Please enter the first no. :  
10  
Please enter the second no. :  
20  
Sum is 30  
[root@localhost d2]#
```

expr + basic arithmetic operation used for math.

```
~  
"pr_2.sh" 11L, 157B written  
[root@localhost d2]# sh pr_2.sh  
please enter the no. to print table :  
5  
Table of 5 is :  
5 X 1 = 5  
5 X 2 = 10  
5 X 3 = 15  
5 X 4 = 20  
5 X 5 = 25  
5 X 6 = 30  
5 X 7 = 35  
5 X 8 = 40  
5 X 9 = 45  
5 X 10 = 50  
[root@localhost d2]#
```



PRACTICAL 4

AIM:- Write a shell script to validate the entered date. (eg. Date format is dd-mm-yyyy).

Input: -

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

```
d='date +%m-%d-%Y'
```

```
echo $d #DD-MM-YYYY
```

```
echo " Please Enter Date "
```

```
read D
```

```
echo " Please Enter Month "
```

```
read M
```

```
echo " Please Enter Year "
```

```
read Y
```

```
if [ `expr $Y % 4` -eq 0 ]
```

```
then
```

```
Mayur Pandya Division: - 4B18
```

```
echo "$Y is a leap year"
```

```
else
```

```
echo "$Y is not a leap year"
```

```
fi
```

#Output:-



```
[kali@kali:~/Desktop/Mayur,2103031050656]
$ ./bin/bash
d='date +%m-%d-%Y'
echo $d #DD-MM-YYYY
01-01-2021
echo " Please Enter Date "
read D
echo " Please Enter Month "
read M
echo " Please Enter Year "
read Y
if [ `expr $Y % 4` -eq 0 ]
then
Mayur Pandya Division: - 4B18
echo "$Y is a leap year"
else
echo "$Y is not a leap year"
fi

01-01-2021
Please Enter Date
11
Please Enter Month
12
Please Enter Year
2021
2021 is not a leap year
```


PRATICAL - 6

AIM: write a shell script to say good morning/good afternoon/good evening as you login to system.

Code:

```
a=$(date +%H)
if [ $a -lt 12 ];then
b="good morning"
elif [ $a -lt 18 ];then
b="good afternoon"
else
b="good evening"
fi
echo $b
```

```
a=$(date +%H)
if [ $a -lt 12 ];then
b="good morning"
elif [ $a -lt 18 ];then
b="good afternoon"
else
b="good evening"
fi
echo $b
```

```
"time.sh" [New] 9L, 129B written
[root@localhost ~]# sh time.sh
good evening
[root@localhost ~]#
```

PRACTIAL-9

AIM:printing the patterns using for loop.

Code:

```
rows=5
```

```
for ((i=1; i<=rows; i++))
```

```
do
```

```
for ((j=1; j<=i; j++))
```

```
do
```

```
echo -n "*" "
```

```
done
```

```
echo
```

```
Done
```

```
rows=5
for ((i=1; i<rows; i++))
do
    for ((j=1; j<=i; j++))
    do
        echo -n "*"
    done
    echo
done
```

```
~
"a.sh" 10L, 97B written
[root@localhost ~]# sh a.sh
*
**
***
****
[root@localhost ~]#
```

2303031050656

Q. write a shell script program to check which number is grater from the given two numbers.

Program :

```
echo Please enter the first no. :  
read a  
echo Please enter the second no. :  
read b  
if [ $a -gt $b ]  
then  
echo a is grater.  
else  
echo b is grater.  
fi
```

Output :

```
"pr_2.sh" 11L, 150B written  
[root@localhost d2]# sh pr_2.sh  
Please enter the first no. :  
15  
Please enter the second no. :  
10  
a is grater.  
[root@localhost d2]#
```

Q. write a shell script program to check whether number is even or odd.

PRACTIAL-8

AIM: finding out biggest number from given three numbers supplied as command line arguments.

Code:

```
echo "Enter three numbers: "  
read num1 num2 num3  
if [ $num1 -ge $num2 ] && [ $num1 -ge $num3 ]; then  
    largest=$num1  
elif [ $num2 -ge $num1 ] && [ $num2 -ge $num3 ]; then  
    largest=$num2  
else  
    largest=$num3  
fi  
echo "The largest number is: $largest"
```

```
echo "Enter three numbers:"  
read num1 num2 num3  
if [ $num1 -ge $num2 ] && [ $num1 -ge $num3 ]; then  
    largest=$num1  
elif [ $num2 -ge $num1 ] && [ $num2 -ge $num3 ]; then  
    largest=$num2  
else  
    largest=$num3  
fi  
echo " the largest number is:$largest"
```

```
"a.sh" 11L, 243B written  
[root@localhost ~]# sh a.sh  
Enter three numbers:  
10 20 30  
the largest number is:30  
[root@localhost ~]#
```


PRACTIAL-7

AIM: write a c program to create a child process.

Code:

```
#include<stdio.h>
#include<sys/types.h>
#include<unistd.h>
int main()
{
    Fork()
    Fork()
    Printf(" using fork() system call");
    Return 0;
}
```

```
#include<stdio.h>
#include<sys/types.h>
#include<unistd.h>
int main()
{
    fork();
    fork();
    printf("using fork() system call");
    return 0;
}
```

```
"abc.c" 10L, 148B written
[root@localhost ~]# gcc abc.c -o abc
[root@localhost ~]# ./abc
using fork() system call[root@localhost ~]# using fork() system callusing fork()
system callusing fork() system call
```



PRATICAL-10

AIM: shell script to determine whether given file exist or not.

Code:

Echo plz enter file name

Read a

If [-f \$a]

Then

Echo file exists

Else

Touch \$a

Fi

```
echo plz enter file name
read a
if [ -f $a ]
then
echo file exists
else
touch $a
fi
```

```
"t1.txt" 8L, 84B written
[root@localhost ~]# sh t1.txt
plz enter file name
t1.txt
file exists
[root@localhost ~]#
```



PRACTICAL 5

AIM:- Write a shell script to check entered string is palindrome or not

Input: -

`#!/bin/bash`

Store the string entered by the user

`echo -n "Enter a string: "`

`read str`

Reverse the string

`revstr=$(echo $str | rev)`

Check if the string is a palindrome

`if ["$str" == "$revstr"]`

`then`

`echo "The string is a palindrome"`

`else`

`echo "The string is not a palindrome"`

`fi`

#Output:-

```
(kali@kali)-[~/Desktop/Mayur,210303126039]
$ ./bin/bash
# Store the string entered by the user
echo -n "Enter a string: "
read str
# Reverse the string
revstr=$(echo $str | rev)
# Check if the string is a palindrome
if [ "$str" == "$revstr" ]
then
echo "The string is a palindrome"
else
echo "The string is not a palindrome"
fi

Enter a string: mayur
The string is not a palindrome
```

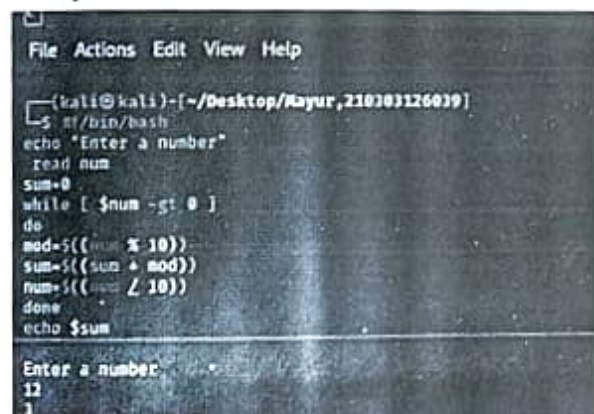
PRACTICAL 3

AIM:-Write a Shell script to print the given numbers sum of all digits.

Input: -

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

#Output:-



```
(kali@kali)-[~/Desktop/Kayur,210303126039]
$ ./bin/bash
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

Enter a number: 12
3
```