Ex.No:4	SIMPLE SHELL PROGRAMS

AIM:

To write simple shell programs by using conditional, branching and looping statements.

1.Write a Shell program to check the given number is even or odd

ALGORITHM:

SEPT 1: Start the program.
STEP 2: Read the value of n.
STEP 3: Calculate 'r=expr $n%2'.
STEP 4: If the value of r equals 0 then print the number is even
STEP 5: If the value of r not equal to 0 then print the number is odd.

PROGRAM:

```
echo "Enter the Number"
read n
r=`expr $n % 2`
if [ $r -eq 0 ]
then
echo "$n is Even number"
else
echo "$n is Odd number"
fi
```

OUTPUT

2.Write a Shell program to check the given year is leap year or not

ALGORITHM:

SEPT 1: Start the program.
STEP 2: Read the value of year.
STEP 3: Calculate 'b=expr $y%4'.
STEP 4: If the value of b equals 0 then print the year is a leap year
STEP 5: If the value of r not equal to 0 then print the year is not a leap year.

PROGRAM:

```
echo "Enter the year"
read y
b=`expr $y % 4`
if [ $b -eq 0 ]
then
echo "$y is a leap year"
else
echo "$y is not a leap year"
fi
```

OUTPUT

3.Write a Shell program to find the factorial of a number

ALGORITHM:

SEPT 1: Start the program.
STEP 2: Read the value of n.
STEP 3: Calculate 'i=expr $n-1'.
STEP 4: If the value of i is greater than 1 then calculate 'n=expr $n * $i' and 'i=expr $i – 1'
STEP 5: Print the factorial of the given number.

PROGRAM:

```
echo "Enter a Number"
read n
i=`expr $n - 1`
p=1
while [ $i -ge 1 ]
do
n=`expr $n \* $i`
i=`expr $i - 1`
done
echo "The Factorial of the given Number is $n"
```

OUTPUT

4.**Write a Shell program to swap the two integers**

ALGORITHM:

SEPT 1: Start the program.
STEP 2: Read the value of a,b.
STEP 3: Calculate the swapping of two values by using a temporary variable temp.
STEP 4: Print the value of a and b.

PROGRAM:

```
echo "Enter Two Numbers"
read a b
temp=$a
a=$b
b=$temp
echo "after swapping"
echo $a $b
```

OUTPUT

RESULT: