

## PRACTICAL-5

Aim :- Write a shell script to find factorial of given number n.

Shell script :-

```
1 echo -n "enter a factorial number that you want to print "
2 read m1
3 m2=$((m1))
4 fact=1
5 while [ $m1 -ge 1 ]
6 do
7 fact=$((fact*m1))
8 m1=$((m1-1))
9 done
10 echo " factorial of 5 is $fact "
```

Output:-

```
vboxuser@ubuntu:~$ chmod +x fa.sh
vboxuser@ubuntu:~$ ./fa.sh
enter a factorial number that you want to print 5
./fa.sh: line 3: m1: command not found
factorial of 5 is 120
vboxuser@ubuntu:~$
```

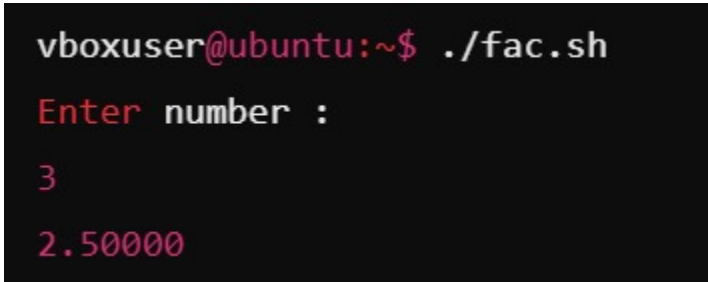
Extra example:-

1. Write a Bash script to compute the series sum:  $S = \sum (i / i!)$  from  $i = 1$  to num

Shell script :-

```
1 echo "Enter number : "  
2 read num  
3 nres=0.0  
4 for ((i=1;i<=num;i++))  
5 do  
6     res=1  
7     for ((j=1;j<=i;j++))  
8     do  
9         res=$((res*j))  
10    done  
11    nres=$((echo "scale=5; $nres + $i / $res" | bc))  
12 done  
13 echo "$nres"
```

Output:-



```
vboxuser@ubuntu:~$ ./fac.sh  
Enter number :  
3  
2.50000
```