

### Assignment: 1

**Aim:** Write a shell script to find out the factorial of a given number.

### Algorithm:

Step 1: Take a number from user.

Step 2: Show error message if the number is negative.

Step 3: Iterate from 1 until the upper limit is reached.

    Multiply each iteration with the previous value.

Step 4: Display Result.

### Note:

**expr** command is used to perform simple integer calculations.

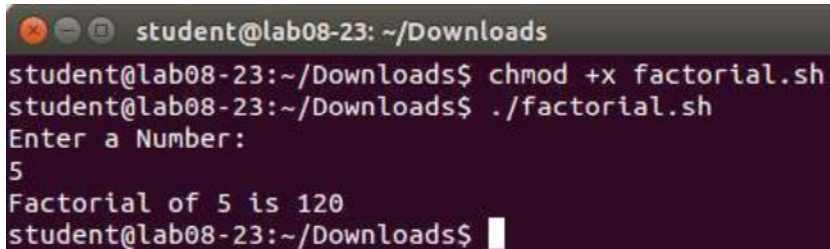
**` ( back quote )** is used to perform an operation.

Example: `sum=`expr $A + $B``

Here, the sum of the values of the variables A and B would be stored in the variable sum.

For multiplication operation use `\*` (not `*`)

### Sample I/O:

A screenshot of a terminal window with a dark background. The prompt is 'student@lab08-23: ~/Downloads'. The user enters 'chmod +x factorial.sh', followed by './factorial.sh'. The script prompts 'Enter a Number:' and the user enters '5'. The script outputs 'Factorial of 5 is 120'. The prompt returns to 'student@lab08-23:~/Downloads\$' with a cursor.

```
student@lab08-23: ~/Downloads
student@lab08-23:~/Downloads$ chmod +x factorial.sh
student@lab08-23:~/Downloads$ ./factorial.sh
Enter a Number:
5
Factorial of 5 is 120
student@lab08-23:~/Downloads$
```

Test your program with the following input set {5,-2,3,0,4,8}