

Vellore Institute of Technology
Principles of Operating Systems Lab (CBS1006)
Digital Assignment 1

Date: 16 August 2022

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Registration Number: 21BBS0162

Question 1: Create a shell script program that uses a "for" loop to find the factorial of a given number.

Code:

```
echo "Registration Number: 21BBS0162"

echo "Name: Anuj Parihar"

echo "Enter a number: "

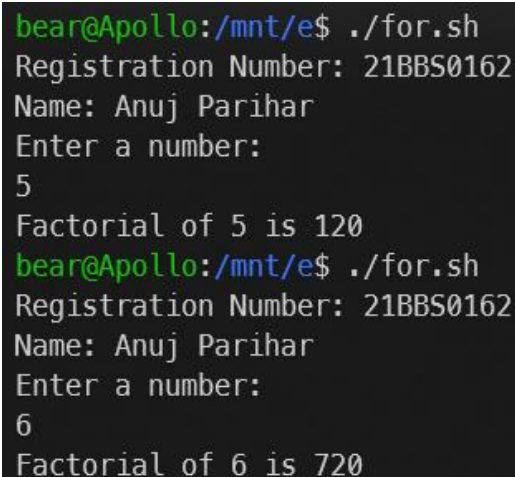
read num

fact=1

for i in `seq 1 $num`
do
fact=$((fact*i))
done

echo "Factorial of $num is $fact"
```

Screenshot:



```
bear@Apollo:/mnt/e$ ./for.sh
Registration Number: 21BBS0162
Name: Anuj Parihar
Enter a number:
5
Factorial of 5 is 120
bear@Apollo:/mnt/e$ ./for.sh
Registration Number: 21BBS0162
Name: Anuj Parihar
Enter a number:
6
Factorial of 6 is 720
```

Question 2: Write a shell script program that numerical value (0 to 5) to print the following pattern (shown below). To print the left and right parts of the pattern, use nested loops.

Code:

```
echo "Registration Number: 21BBS0162"
```

```
echo "Name: Anuj Parihar"
```

```
i=0
```

```
j=0
```

```
x=5
```

```
while [ $i -le 5 ]
```

```
do
```

```
    j=0
```

```
    while [ $j -le 5 ]
```

```
    do
```

```
        if [ 5 -le `expr $i + $j` ]
```

```
        then
```

```
            echo -ne "$x"
```

```
        else
```

```
            echo -ne " "
```

```
        fi
```

```
        j=`expr $j + 1`
```

```
    done
```

```
    echo
```

```
    i=`expr $i + 1`
```

```
    x=`expr $x - 1`
```

```
done
```

Screenshot:

```
bear@Apollo:/mnt/e$ ./symbol.sh
Registration Number: 21BBS0162
Name: Anuj Parihar
    5
   44
  333
 2222
11111
000000
```