

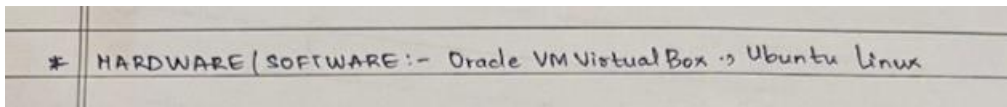
LAB Manual

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<b>Semester: IV</b>	<b>Year AY 22-23</b>
<b>Subject Title: Operating Systems Lab</b>	
<b>EXPERIMENT No: 6</b>	
<b>TITLE: Loop Statement</b>	<b>DoP : 9-03-2024</b>

**Aim:** Implement shell script to demonstrate Loop statements

**Learning Outcomes:** 1. To understand the control statements  
2. To Demonstrate the shell script to demonstrate control statements using Linux command.

**Hardware/Software:**



Problem Definition: Implementing for Loop

1. Shell Script using for loop to print the pattern: (ask user to enter value of n)

```
*
**
***
****
*****
*****
****
***
**
*
```

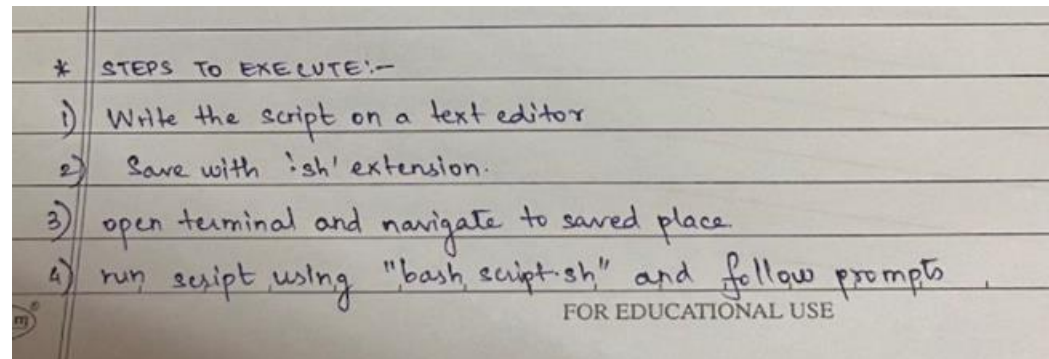
### Theory:

*	THEORY:-
1)	for loop :- used when we know in advance how many times we want to execute a block of code. Initialize a loop, specify a condition and increment/decrement.
2)	while loop :- to execute the block of code as long as the condition is true.
3)	do while :- control flow statement that executes a block of code repeatedly until a condition becomes false.

### Program:

```
echo "Enter the value of n: "  
read n  
for ((i = 1; i <= n; i++)); do  
    for ((j = 1; j <= i; j++)); do  
        echo -n "*"   
    done  
    echo " "  
done  
for ((i = n-1; i >= 1; i--)); do  
    for ((j = 1; j <= i; j++)); do  
        echo -n "*"   
    done  
    echo " "  
done
```

### Steps to execute the program:



### Output:

```
student@ubuntu:~$ bash gaurik.sh
Enter the value of n:
5
*
**
***
****
*****
****
***
**
*
```

