

Experiment No. 2.2

**Write programs using Arithmetic operators in shell
programming & Boolean operators in shell programming**

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Section/Group: - 20BIT (A)

Semester: 3rd

Date of Performance: 7/11/2021

Subject Name: -Operating System Lab

Subject Code: 21O-20CSP-232_20BIT-1_B

1. Aim/Overview of the practical: Write a program to show Arithmetic operators in shell programming & Boolean operators in shell programming.

2. Task to be done:

Understand and execute basic commands of shell script.

3. Apparatus:

- Laptop/PC
- Good internet connection
- C language IDE
- UNIX system

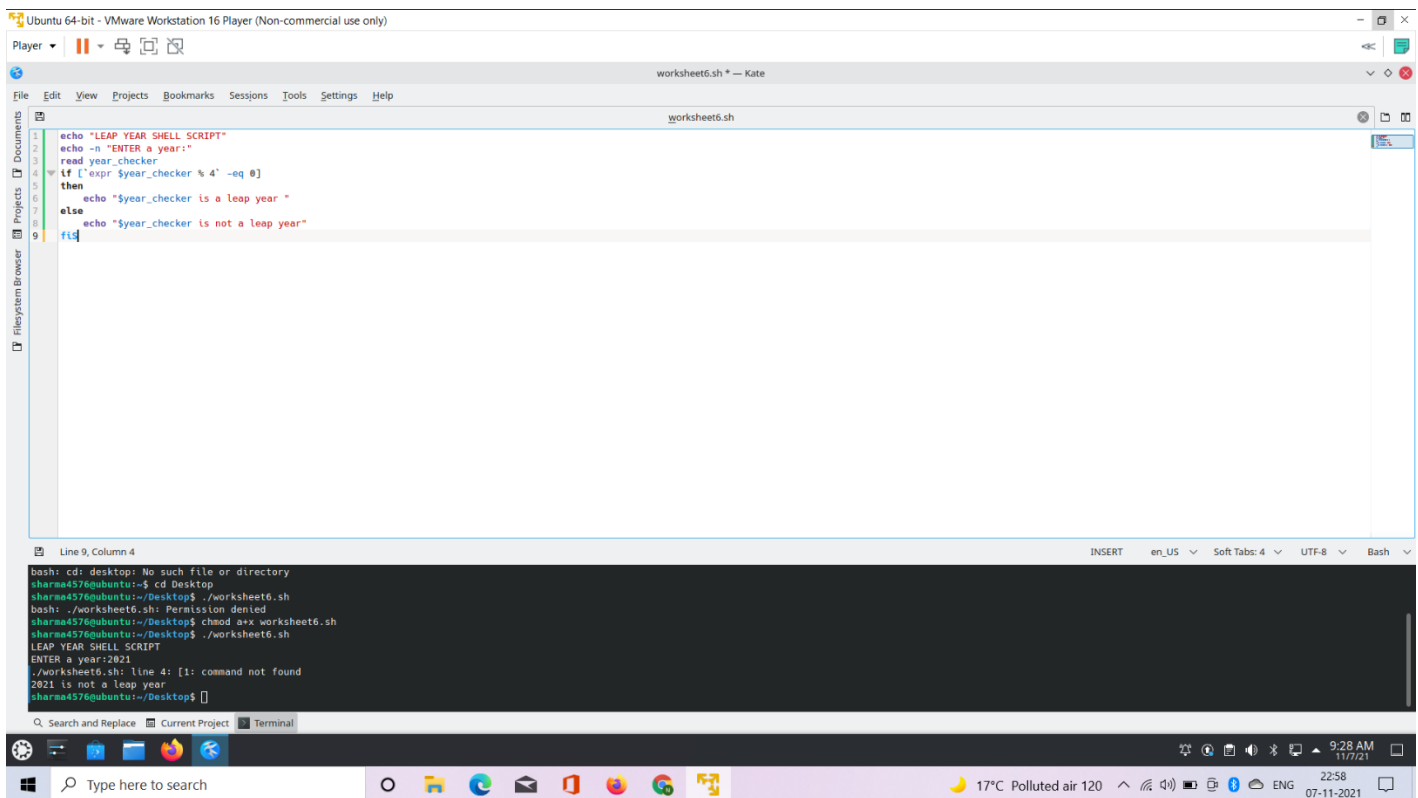
4. CODE :

1. Write a shell program to Check a given year is a leap year or not.

Program code-

```
echo "LEAP YEAR SHELL SCRIPT"
echo -n "Enter a year:"
read year_checker
if [ `expr $year_checker % 4` -eq 0 ]
then
    echo "$year_checker is a leap year"
else
    echo "$year_checker is not a leap year"
fi
```

Output-



```

1 echo "LEAP YEAR SHELL SCRIPT"
2 echo -n "ENTER a year:"
3 read year_checker
4 if [ `expr $year_checker % 4` -eq 0 ]
5 then
6     echo "$year_checker is a leap year "
7 else
8     echo "$year_checker is not a leap year"
9 fi

```

```

bash: cd: desktop: No such file or directory
sharma4576ubuntu:~$ cd Desktop
sharma4576ubuntu:~/Desktop$ ./worksheet6.sh
bash: ./worksheet6.sh: Permission denied
sharma4576ubuntu:~/Desktop$ chmod a+x worksheet6.sh
sharma4576ubuntu:~/Desktop$ ./worksheet6.sh
LEAP YEAR SHELL SCRIPT
ENTER a year:2021
./worksheet6.sh: line 4: [: command not found
2021 is not a Leap year
sharma4576ubuntu:~/Desktop$

```

2. Write a Shell program to check a number is Palindrome or not.

Program code-

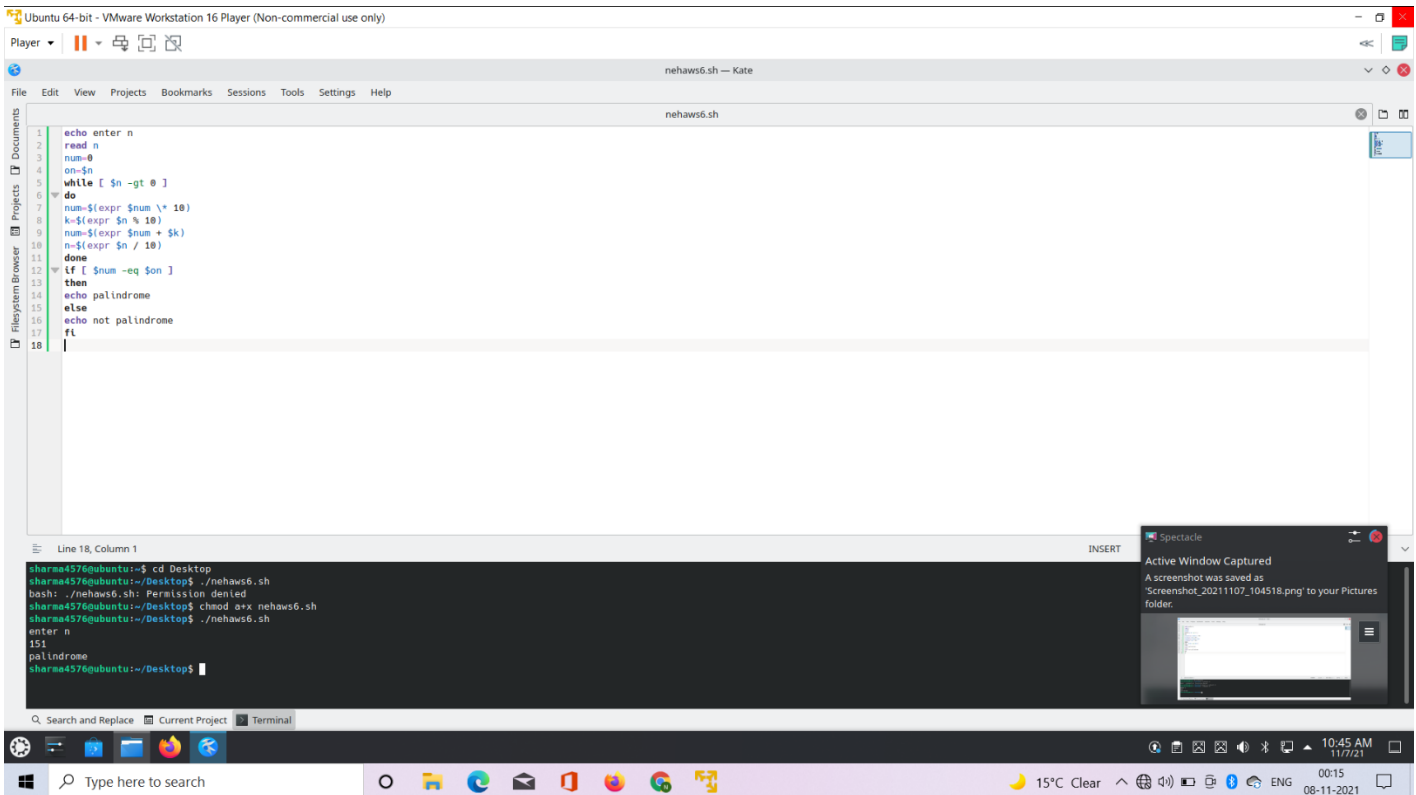
```

echo enter n
read n
num=0
on=$n
while [ $n -gt 0 ]
do
num=$((expr $num \* 10 ))
k=$((expr $n /% 10 ))
num=$((expr $num + $k))
n=$((expr $n / 10))
done

```

```
if [ $num -eq $on ]
then
    echo palindrome
else
    echo not palindrome"
fi
```

Output-



```
sharma457@ubuntu:~$ cd Desktop
sharma457@ubuntu:~/Desktop$ ./nehaw6.sh
bash: ./nehaw6.sh: Permission denied
sharma457@ubuntu:~/Desktop$ chmod a+x nehaw6.sh
sharma457@ubuntu:~/Desktop$ ./nehaw6.sh
enter n
151
palindrome
sharma457@ubuntu:~/Desktop$
```

5.Result: Commands working successfully

Learning outcomes (What I have learnt):

- 1. Learn how to use different Linux commands like chmod ,echo, read command**
- 2. Understood and execute basic commands of shell script**
- 3. Applied the basic operations in shell script which are required for different applications.**

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			