

LAB: 3

1) Write a shell script to find the largest number of three numbers.

```
echo "Enter Num1"
read num1
echo "Enter Num2"
read num2
echo "Enter Num3"
read num3

if [ $num1 -gt $num2 ] && [ $num1 -gt $num3 ]
then
    echo $num1
elif [ $num2 -gt $num1 ] && [ $num2 -gt $num3 ]
then
    echo $num2
else
    echo $num3
fi
```

OUTPUT:

```
ubuntu@ubuntu-VirtualBox:~$ nano p.sh
ubuntu@ubuntu-VirtualBox:~$ chmod 777 p.sh
ubuntu@ubuntu-VirtualBox:~$ ./p.sh
Enter Num1
1
Enter Num2
34
Enter Num3
56
56
```

2) Write a menu driven shell script will point the following menu and execute the give task.

A. Display calender of current month

B. Display today's date and time

C. Display username those are currently logged in the system

D. Display your name at given x,y position

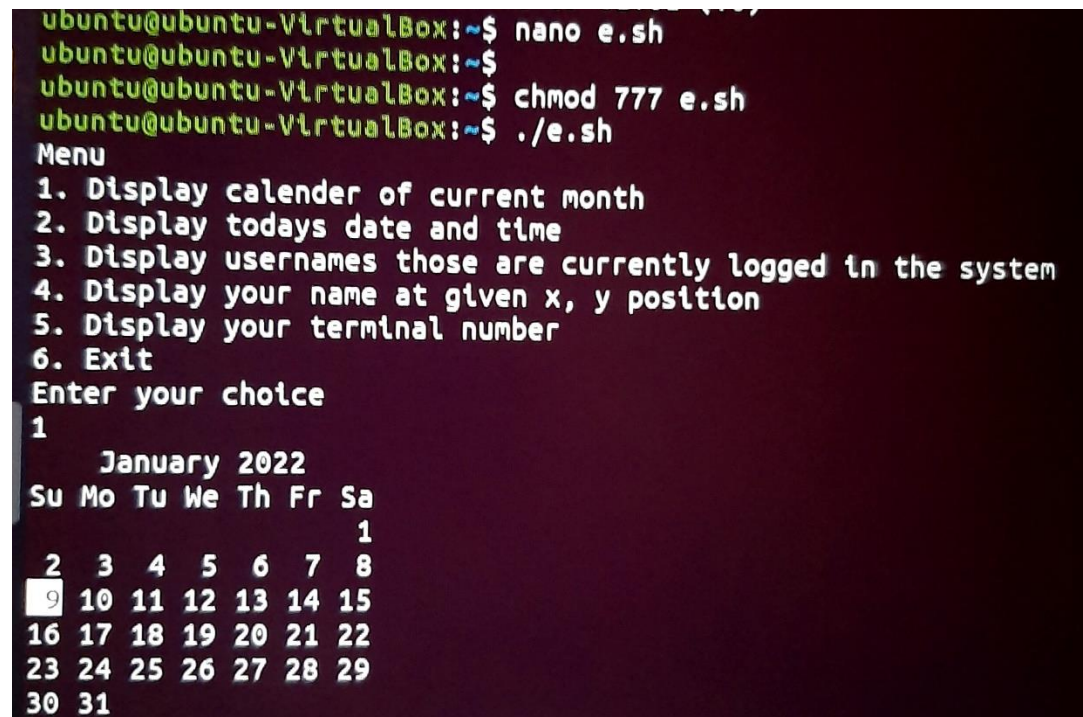
E.Exit

Display your terminal number.

```
echo "Menu"
echo "1. Display calender of current month "
echo "2. Display todays date and time"
echo "3. Display usernames those are currently logged in the
system"
echo "4. Display your name at given x, y position"
echo "5. Display your terminal number"
echo "6. Exit"
echo "Enter your choice"
read c
case $c in
1) cal;;
```

```
2) date;;
3) who;;
4) clear
echo "Enter x, y position"
read x
read y
tput cup $x $y
whoami;;
5) tty;;
6) exit;;
esac
```

OUTPUT:

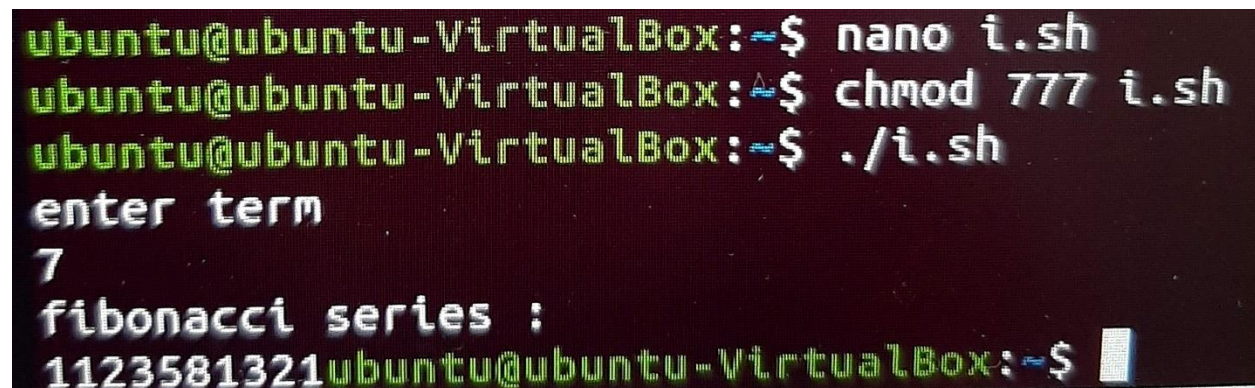


```
ubuntu@ubuntu-VirtualBox:~$ nano e.sh
ubuntu@ubuntu-VirtualBox:~$
ubuntu@ubuntu-VirtualBox:~$ chmod 777 e.sh
ubuntu@ubuntu-VirtualBox:~$ ./e.sh
Menu
1. Display calender of current month
2. Display todays date and time
3. Display usernames those are currently logged in the system
4. Display your name at given x, y position
5. Display your terminal number
6. Exit
Enter your choice
1
    January 2022
Su Mo Tu We Th Fr Sa
      1
  2  3  4  5  6  7  8
 9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30 31
```

3) Write a shell script which will generate first n Fibonacci numbers like :1,1,2,3,5,13,....

```
echo "enter term"
read n
a=0;
b=1;
echo "fibonacci series :"
echo -n "$b"
for (( i=1;i<=$n;i++ ))
do
c=`expr $a + $b`
a=$b
b=$c
echo -n "$c"
done
```

OUTPUT:

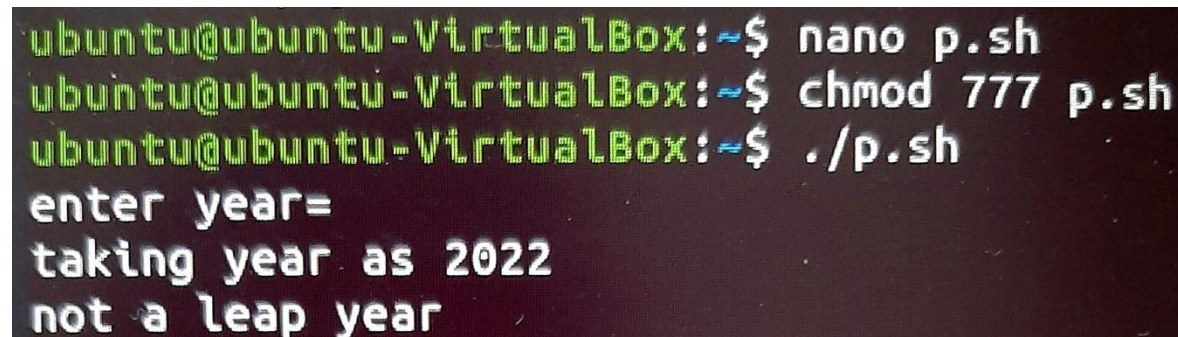


```
ubuntu@ubuntu-VirtualBox:~$ nano i.sh
ubuntu@ubuntu-VirtualBox:~$ chmod 777 i.sh
ubuntu@ubuntu-VirtualBox:~$ ./i.sh
enter term
7
fibonacci series :
1123581321ubuntu@ubuntu-VirtualBox:~$
```

4) Write a shell script to find whether a given year is leap year or not.

```
leap=$(date +"%Y")
echo taking year as $leap
if [ `expr $leap % 400` -eq 0 ]
then
echo leap year
elif [ `expr $leap % 100` -eq 0 ]
then
echo not a leap year
elif [ `expr $leap % 4` -eq 0 ]
then
echo leap year
else
echo not a leap year
fi
```

OUTPUT:

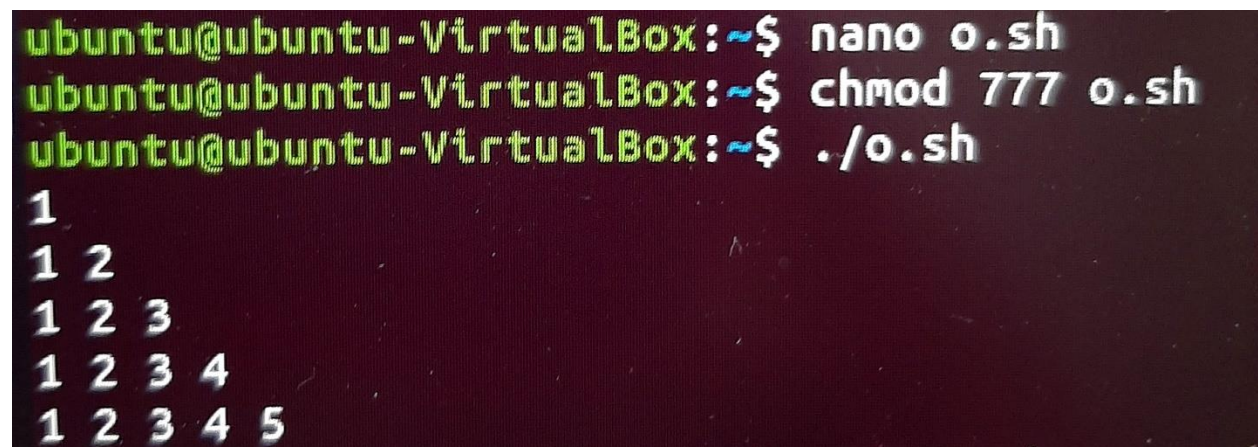


```
ubuntu@ubuntu-VirtualBox:~$ nano p.sh
ubuntu@ubuntu-VirtualBox:~$ chmod 777 p.sh
ubuntu@ubuntu-VirtualBox:~$ ./p.sh
enter year=
taking year as 2022
not a leap year
```

5) Shell Script to print half pyramid using numbers.

```
number=1
rows=5
for((i=1; i<=rows; i++))
do
    for((j=1; j<=i; j++))
    do
        echo -n "$number "
        number=$((number + 1))
    done
    number=1
    echo
done
```

OUTPUT:



```
ubuntu@ubuntu-VirtualBox:~$ nano o.sh
ubuntu@ubuntu-VirtualBox:~$ chmod 777 o.sh
ubuntu@ubuntu-VirtualBox:~$ ./o.sh
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

The screenshot shows a terminal window with a dark background. The prompt is 'ubuntu@ubuntu-VirtualBox:~\$'. The user enters 'nano o.sh', then 'chmod 777 o.sh', and finally './o.sh'. The output of the script is a half pyramid of numbers: the first line is '1', the second is '1 2', the third is '1 2 3', the fourth is '1 2 3 4', and the fifth is '1 2 3 4 5'.