

Assignment No.3

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Roll No. 66

Basic Shell Programming

1. Write a shell script program to execute ls, date and echo commands repeatedly.

```
bhavin@predator: ~/Temp/os 80x24
GNU nano 6.2 script.sh
ls
date
echo "This message is printed using echo command"
```

```
bhavin@predator:~/Temp/os$ nano script.sh
bhavin@predator:~/Temp/os$ chmod +x script.sh
bhavin@predator:~/Temp/os$ ./script.sh
capital capitals1 capitals3 mycapitals mystates ostut
capitals capitals2 file1 mydate oslab script.sh
Thursday 15 September 2022 11:03:42 AM IST
This message is printed using echo command
```

2. Write a shell script program to show the details related to shell, path and home directories of the user.

```
bhavin@predator: ~/Temp/os 80x24
GNU nano 6.2 script2.sh
echo "Shell : $SHELL"
echo "Path : $PATH"
echo "Home : $HOME"
```

```
bhavin@predator:~/Temp/os$ nano script2.sh
bhavin@predator:~/Temp/os$ chmod +x script2.sh
bhavin@predator:~/Temp/os$ ./script2.sh
Shell : /bin/bash
Path : /usr/local/cuda/bin:/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin
Home : /home/bhavin
```

3. Write a shell script program to create two files. The name of the files will be passed by user using read function.

```
GNU nano 6.2 script3.sh
bhavin@predator: ~/Temp/os/lab3 80x24
echo "Enter name for first file"
read file1
echo "Enter name for second file"
read file2

touch $file1 $file2
echo $file1 "and" $file2 "are created successfully"

ls
```

```
bhavin@predator:~/Temp/os/lab3$ ls
script2.sh script.sh
bhavin@predator:~/Temp/os/lab3$ nano script3.sh
bhavin@predator:~/Temp/os/lab3$ chmod +x script3.sh
bhavin@predator:~/Temp/os/lab3$ ./script3.sh
Enter name for first file
omen
Enter name for second file
reyna
omen and reyna are created successfully
omen reyna script2.sh script3.sh script.sh
bhavin@predator:~/Temp/os/lab3$
```

4. Write a shell script program to create two files. The name of the files will be passed by user using command line arguments.

```
GNU nano 6.2 script4.sh
bhavin@predator: ~/Temp/os/lab3 80x24
touch $1 $2
echo $1 "and" $2 "are created successfully"
ls
```

```
GNU nano 6.2 script4.sh
bhavin@predator: ~/Temp/os/lab3 80x24
bhavin@predator:~/Temp/os/lab3$ ls
omen reyna script2.sh script3.sh script4.sh script.sh
bhavin@predator:~/Temp/os/lab3$ nano script4.sh
bhavin@predator:~/Temp/os/lab3$ chmod +x script4.sh
bhavin@predator:~/Temp/os/lab3$ ./script4.sh kayo neon
kayo and neon are created successfully
kayo neon omen reyna script2.sh script3.sh script4.sh script.sh
bhavin@predator:~/Temp/os/lab3$
```

5. Write a shell script program to create two directories. The name of the files will be passed by user using read function.

```
bhavin@predator: ~/Temp/os/lab3 80x24
GNU nano 6.2 script5.sh *
echo "Enter name for first directory"
read dir1
echo "Enter name for second file"
read dir2

mkdir $dir1 $dir2
echo $dir1 "and" $dir2 "are created successfully"

ls
```

```
bhavin@predator:~/Temp/os/lab3$ ls
kayo neon omen reyna script2.sh script3.sh script4.sh script.sh
bhavin@predator:~/Temp/os/lab3$ cat script3.sh > script5.sh
bhavin@predator:~/Temp/os/lab3$ nano script5.sh
bhavin@predator:~/Temp/os/lab3$ chmod +x script5.sh
bhavin@predator:~/Temp/os/lab3$ ./script5.sh
Enter name for first directory
haven
Enter name for second file
icebox
haven and icebox are created successfully
haven kayo omen script2.sh script4.sh script.sh
icebox neon reyna script3.sh script5.sh
bhavin@predator:~/Temp/os/lab3$ ls
haven kayo omen script2.sh script4.sh script.sh
icebox neon reyna script3.sh script5.sh
```

6. Write a shell script program to create two directories. The name of the files will be passed by user using command line arguments.

```
bhavin@predator: ~/Temp/os/lab3 80x24
GNU nano 6.2 script6.sh
mkdir $1 $2
echo $1 "and" $2 "are created successfully"
ls
```

```
bhavin@predator: ~/Temp/os/lab3 80x24
bhavin@predator:~/Temp/os/lab3$ ls
haven kayo omen script2.sh script4.sh script.sh
icebox neon reyna script3.sh script5.sh
bhavin@predator:~/Temp/os/lab3$ cat script4.sh > script6.sh
bhavin@predator:~/Temp/os/lab3$ nano script6.sh
bhavin@predator:~/Temp/os/lab3$ chmod +x script6.sh
bhavin@predator:~/Temp/os/lab3$ ./script6.sh ascent breeze
ascent and breeze are created successfully
ascent haven kayo omen script2.sh script4.sh script6.sh
breeze icebox neon reyna script3.sh script5.sh script.sh
bhavin@predator:~/Temp/os/lab3$ ls
ascent haven kayo omen script2.sh script4.sh script6.sh
breeze icebox neon reyna script3.sh script5.sh script.sh
bhavin@predator:~/Temp/os/lab3$
```

7. Write shell script to change the name of a file .Ask from user old filename and new filename.

```
bhavin@predator: ~/Temp/os/lab3 80x24
GNU nano 6.2 script7.sh
echo "Enter file name you want to change: "
read old
echo "Enter new name for the file name"
read new

echo "Before changing the file name"
ls
mv $old $new
echo "File name change successfully"
echo "After file name changed"
ls
```

```
bhavin@predator: ~/Temp/os/lab3 80x24
bhavin@predator:~/Temp/os/lab3$ ls
ascent  brim  icebox  omen  script2.sh  script4.sh  script6.sh  script.sh
breeze  haven  neon    reyna  script3.sh  script5.sh  script7.sh
bhavin@predator:~/Temp/os/lab3$ nano script7.sh
bhavin@predator:~/Temp/os/lab3$ chmod +x script7.sh
bhavin@predator:~/Temp/os/lab3$ ./script7.sh
Enter file name you want to change:
neon
Enter new name for the file name
sky
Before changing the file name
ascent  brim  icebox  omen  script2.sh  script4.sh  script6.sh  script.sh
breeze  haven  neon    reyna  script3.sh  script5.sh  script7.sh
File name change successfully
After file name changed
ascent  brim  icebox  reyna  script3.sh  script5.sh  script7.sh  sky
breeze  haven  omen    script2.sh  script4.sh  script6.sh  script.sh
bhavin@predator:~/Temp/os/lab3$
```

8. Write a shell script to find the largest number among three numbers.

```
bhavin@predator: ~/Temp/os/lab3 80x24
GNU nano 6.2 script8.sh
echo "Enter first Number"
read num1

echo "Enter second Number"
read num2

echo "Enter third Number"
read num3

if [ $num1 -eq $num2 ] && [ $num2 -eq $num3 ]
then
echo "Numbers are Equal"
elif [ $num1 -gt $num2 ] && [ $num1 -gt $num3 ]
then
echo $num1 "is greater than other two numbers"
elif [ $num2 -gt $num1 ] && [ $num2 -gt $num3 ]
then
echo $num2 "is greater than other two numbers"
else
echo $num3 "is greater than other two numbers"
[ Read 22 lines ]
```

```
bhavin@predator: ~/Temp/os/lab3 80x24
bhavin@predator:~/Temp/os/lab3$ nano script8.sh
bhavin@predator:~/Temp/os/lab3$ ./script8.sh
Enter first Number
4
Enter second Number
6
Enter third Number
2
6 is greater than other two numbers
bhavin@predator:~/Temp/os/lab3$
```

9. Write shell script to create three files f1, f2, f3 using for loop.

```
bhavin@predator: ~/Temp/os/lab3 80x24
GNU nano 6.2 script9.sh
echo "Before files created"
ls
for((i=0;i<3;i++))
do
touch "F"$i
done
echo "Files F1, F2, F3 are created"

echo "After files created"
ls
```

```
bhavin@predator: ~/Temp/os/lab3 80x24
bhavin@predator:~/Temp/os/lab3$ nano script9.sh
bhavin@predator:~/Temp/os/lab3$ chmod +x script9.sh
bhavin@predator:~/Temp/os/lab3$ ./script9.sh
Before files created
ascend haven reyna script4.sh script7.sh script.sh
breeze icebox script2.sh script5.sh script8.sh sky
brim omen script3.sh script6.sh script9.sh
Files F1, F2, F3 are created
After files created
ascend F0 haven reyna script4.sh script7.sh script.sh
breeze F1 icebox script2.sh script5.sh script8.sh sky
brim F2 omen script3.sh script6.sh script9.sh
bhavin@predator:~/Temp/os/lab3$
```


10. Write a shell script to display date and time. Assume 1 sec delay.

```
bhavin@predator: ~/Temp/os/lab3 80x24
GNU nano 6.2 script10.sh
for((i=1;i<100;i++))
do
    sleep $i
    date
done
```

```
bhavin@predator: ~/Temp/os/lab3 80x24
bhavin@predator:~/Temp/os/lab3$ nano script10.sh
bhavin@predator:~/Temp/os/lab3$ chmod +x script10.sh
bhavin@predator:~/Temp/os/lab3$ ./script10.sh
Thursday 15 September 2022 12:34:51 PM IST
Thursday 15 September 2022 12:34:53 PM IST
Thursday 15 September 2022 12:34:56 PM IST
^[[3~Thursday 15 September 2022 12:35:00 PM IST

```