

## Experiment 08

**Aim:** Basic programs in shell scripting

1. WAP to check whether no. entered is even or odd

```
localhost:~# vi evenodd.sh
#!/bin/bash
read -p "Enter a number: " num

if [  $((num \% 2)) -eq 0$  ]
then
    echo "Your number is even"
else
    echo "Your number is odd"
fi

~
~
localhost:~# chmod 711 evenodd.sh
localhost:~# ./evenodd.sh
Enter a number: 12
Your number is even
```

2. WAP to print the factorial of a number

```
localhost:~# vi factorial.sh
#!/bin/bash
read -p "Enter a number: " num

factorial=1

for ((i = 1; i <= num; i++))
do
    factorial=$((factorial * i))
done

echo "Factorial: $factorial"

~
localhost:~# chmod 711 factorial.sh
localhost:~# ./factorial.sh
Enter a number: 5
Factorial: 120
```

### 3. WAP to create directories through vi text editor

```
localhost:~# mkdir yash
localhost:~# cd yash
localhost:~/yash# vi directories.sh
#!/bin/bash
mkdir -p {Maths, English}/{Notes, Examresults}
~
localhost:~/yash# chmod +x directories.sh
localhost:~/yash# ./directories.sh
localhost:~/yash# ls -R
.:
English}      Examresults}  directories.sh {Maths,
./English}:
{Notes,
./English}/{Notes,:
./Examresults}:
./{Maths,:
```

### 4. WAP to read a file into a variable

```
localhost:~/yash# cat > mysamplefile.txt
My name is Yash Kataria. I study in MRIIRS.
localhost:~/yash# vi readfile.sh
#!/bin/bash
myvalue=$(cat mysamplefile.txt)
echo "$myvalue"
~
localhost:~/yash# chmod 711 readfile.sh
localhost:~/yash# ./readfile.sh
My name is Yash Kataria. I study in MRIIRS.
```

### 5. WAP to read a file line by line

```
localhost:~/yash# cat > car.txt
Maruti Suzuki swift dezire
MG Hector
Mahindra Thar roxx
localhost:~/yash# vi printfile.sh
#!/bin/bash
myfile="car.txt"
i=1
while read lines; do
    echo "$i: $lines"
    i=$((i+1))
done < "$myfile"
~
localhost:~/yash# chmod u+rx printfile.sh
localhost:~/yash# ./printfile.sh
1: Maruti Suzuki swift dezire
2: MG Hector
3: Mahindra Thar roxx
```

## 6. WAP to display system information

```
localhost:~/yash# vi system.sh
#!/bin/bash
echo "Date"
date
echo "Uptime"
uptime
echo "Memory usage"
free -m
echo "Network usage"
ip a
~
localhost:~/yash# chmod 711 system.sh
localhost:~/yash# ./system.sh
Date
Mon Mar 17 06:38:05 UTC 2025
Uptime
 06:38:05 up 13 min,  load average: 0.00, 0.00, 0.00
Memory usage
      total        used        free      shared  buff/cache   available
Mem:      119         5         113          0          1         111
Swap:      0          0          0
Network usage
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UNKNOWN qlen 1000
    link/ether 02:bc:60:45:c5:f3 brd ff:ff:ff:ff:ff:ff
```

## 7. WAP to find and replace text in a string

```
localhost:~/yash# vi findreplace.sh
#!/bin/bash
first="I drive BMW and Volvo"
second="Audi"
echo "${first/BMW/$second}"
~
localhost:~/yash# chmod u+rx findreplace.sh
localhost:~/yash# ./findreplace.sh
I drive Audi and Volvo
```