



EXPERIMENT - 3

Operating Systems Lab

AIM

To write the following shell programs:

- Program to find the greatest of 3 numbers.
- Program to find given number is odd or even.
- Program to check whether a given number is prime or not.

Syeda Reeha Quasar

14114802719

6C7

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Aim:

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- Program to check whether a given number is prime or not.

Source Code:

```
echo "Hello World!"
```

```
reeha@Reeha:/mnt/e/sem 6/Operating Systems$ ./helloWorld.sh
Hello World!
reeha@Reeha:/mnt/e/sem 6/Operating Systems$
```

Program to find the greatest of 3 numbers:

```
echo "This is a program to find the greatest of 3 numbers"
```

```
echo "Enter 3 numbers"
```

```
read n1
```

```
read n2
```

```
read n3
```

```
echo "greatest number is:"
```

```
if [ $n1 -gt $n2 ] && [ $n1 -gt $n3 ]
```

```
then
```

```
    echo $n1
```

```
elif [ $n2 -gt $n1 ] && [ $n2 -gt $n3 ]
```

```
then
```

```
    echo $n2
```

```
else
```

```
    echo $n3
```

```
fi
```

Output:

```
reeha@Reeha:/mnt/e/sem 6/Operating Systems$ ./greatestof3nums.sh
This is a program to find greatest of 3 numbers
Enter 3 numbers
10
20
3
greatest number is:
20
reeha@Reeha:/mnt/e/sem 6/Operating Systems$
```

Program to find given number is odd or even:

```
echo "Program to find number is Odd or Even"
echo "Enter the number to check: "
read n
echo "Number is: "
if [ `expr $n % 2` == 0 ]
then
    echo "Even"
else
    echo "Odd"
fi
```

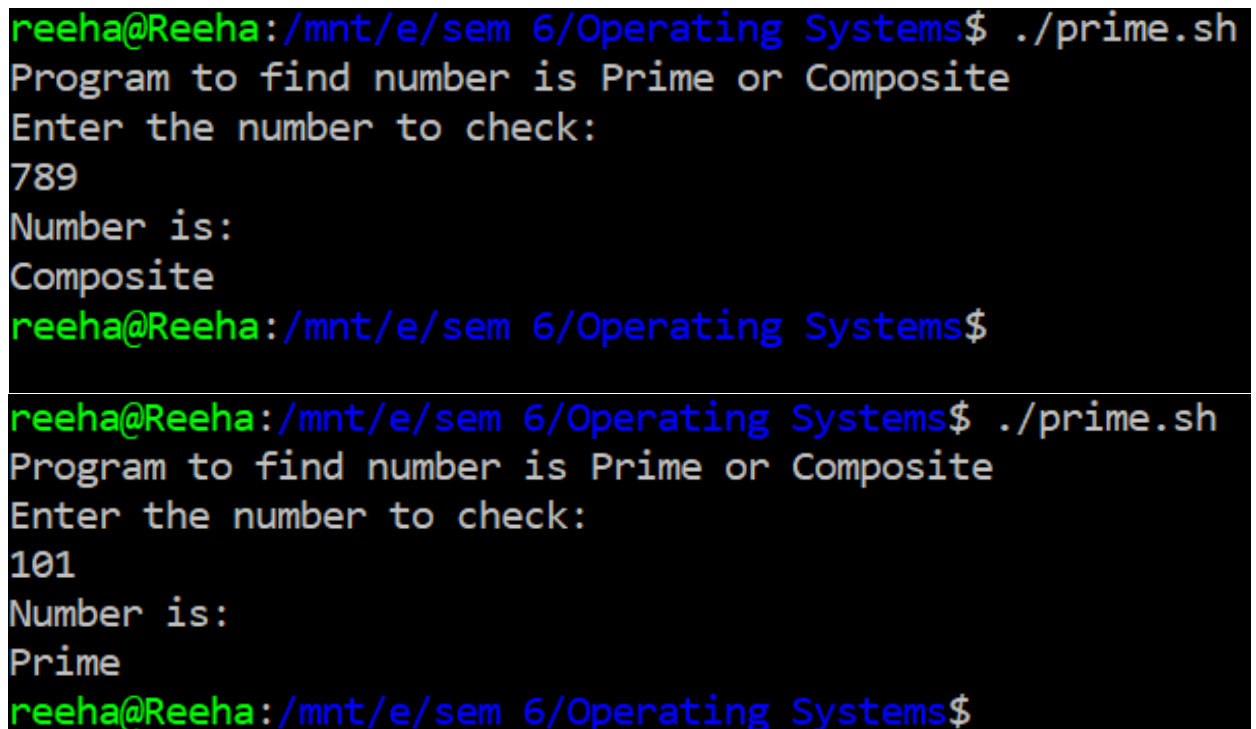
Output:

```
reeha@Reeha:/mnt/e/sem 6/Operating Systems$ ./oddEven.sh
Program to find number is Odd or Even
Enter the number to check:
67
Number is:
Odd
reeha@Reeha:/mnt/e/sem 6/Operating Systems$
```

Program to check whether a given number is prime or not:

```
echo "Program to find number is Prime or Composite"
echo "Enter the number to check: "
read n
echo "Number is: "
for((i = 2; i * i <= n; i++))
do
    if [  $((n \% i)) == 0$  ]
    then
        echo "Composite"
        exit
    fi
done
echo "Prime"
```

Output:



```
reeha@Reeha:/mnt/e/sem 6/Operating Systems$ ./prime.sh
Program to find number is Prime or Composite
Enter the number to check:
789
Number is:
Composite
reeha@Reeha:/mnt/e/sem 6/Operating Systems$

reeha@Reeha:/mnt/e/sem 6/Operating Systems$ ./prime.sh
Program to find number is Prime or Composite
Enter the number to check:
101
Number is:
Prime
reeha@Reeha:/mnt/e/sem 6/Operating Systems$
```