

# OS LAB

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## SHELL PROGRAMS

Write a shell program for the following

### 1) Positive or Negative

```
roehit@LAPTOP-0SIPK43K:~$ nano prn.sh
roehit@LAPTOP-0SIPK43K:~$ chmod 777 prn.sh
roehit@LAPTOP-0SIPK43K:~$ chmod +x prn.sh
roehit@LAPTOP-0SIPK43K:~$ nano prn.sh
roehit@LAPTOP-0SIPK43K:~$ ./prn.sh
Enter a Number
21
Positive
roehit@LAPTOP-0SIPK43K:~$ cat prn.sh
echo "Enter a Number"
read num

if [ $num -lt 0 ]
then
    echo "Negative"
elif [ $num -gt 0 ]
then
    echo "Positive"
else
    echo "Neither Positive Nor Negative"
fi
roehit@LAPTOP-0SIPK43K:~$
```

### 2) Biggest of Three Numbers

```
roehit@LAPTOP-0SIPK43K:~$ nano big.sh
roehit@LAPTOP-0SIPK43K:~$ chmod 777 big.sh
roehit@LAPTOP-0SIPK43K:~$ chmod +x big.sh
roehit@LAPTOP-0SIPK43K:~$ ./big.sh
enter first number
2
enter second number
4
enter third number
6
6 is greatest number
roehit@LAPTOP-0SIPK43K:~$ cat big.sh
echo "enter first number"
read first
echo "enter second number"
read sec
echo "enter third number"
read third
if [ $first -gt $sec ] ; then
if [ $first -gt $third ] ; then
echo -e " $first is greatest number "
else
echo -e " $third is greatest number "
fi
else
if [ $sec -gt $third ] ; then
echo -e " $sec is greatest number "
else
echo -e " $third is greatest number "
fi
fi
roehit@LAPTOP-0SIPK43K:~$
```

3) Sum of digits using while loop

```

roehit@LAPTOP-0SIPK43K:~$ nano sum.sh
roehit@LAPTOP-0SIPK43K:~$ chmod 777 sum.sh
roehit@LAPTOP-0SIPK43K:~$ chmod +x sum.sh
roehit@LAPTOP-0SIPK43K:~$ ./sum.sh
enter no.:
152
Sum of digit is 8
roehit@LAPTOP-0SIPK43K:~$ cat sum.sh
echo "enter no.:"
read num
t=$num
X=0
sum=0
while [ $num -gt 0 ]
do
x=$(( $num % 10 ))
num=$(( $num / 10 )) sum=$(( $sum + $x ))
done
echo "Sum of digit is $sum"roehit@LAPTOP-0SIPK43K:~$

```

#### 4) Sum of first n odd numbers

```

roehit@LAPTOP-0SIPK43K: ~
roehit@LAPTOP-0SIPK43K:~$ nano odd.sh
roehit@LAPTOP-0SIPK43K:~$ chmod 777 odd.sh
roehit@LAPTOP-0SIPK43K:~$ chmod +x odd.sh
roehit@LAPTOP-0SIPK43K:~$ ./odd.sh
Enter number
5
Sum of odd:25
roehit@LAPTOP-0SIPK43K:~$ cat odd.sh
echo "Enter number"
read num
i=1
x=0
while [ $x -lt $num ]
do
add=$((add+i))
i=$((i+2))
x=$((x+1))
done
echo "Sum of odd:"$addroehit@LAPTOP-0SIPK43K:~$

```

#### 5) Sum of first n even numbers

```
roehit@LAPTOP-0SIPK43K: ~  
roehit@LAPTOP-0SIPK43K:~$ nano even.sh  
roehit@LAPTOP-0SIPK43K:~$ chmod 777 even.sh  
roehit@LAPTOP-0SIPK43K:~$ chmod +x even.sh  
roehit@LAPTOP-0SIPK43K:~$ ./even.sh  
Enter number  
3  
Sum of even:12  
roehit@LAPTOP-0SIPK43K:~$
```