Lab 3: Linux Commands - II

Write the following Scripts and Execute in Linux Terminal

1. **Write a shell script to print your name.**

```
read -p "Enter your Name: " PERSON
echo "Hello! $PERSON"
```

```
harsh@Ubuntu:~/Desktop/lab3$ sh hello.sh
Enter your Name: Harsh
Hello! Harsh
```

2. **Write a shell script to find whether a number is even or odd.**

```
read -p "Hello user, Enter a number to check whether it is odd or even: " num
if [ "$(expr $num % 2)" -eq 0 ]
then
        echo "$num is even"
else
        echo "$num is odd"
fi
```

```
harsh@Ubuntu:~/Desktop/lab3$ sh evenodd.sh
Hello user, Enter a number to check whether it is odd or even: 55
55 is odd
harsh@Ubuntu:~/Desktop/lab3$ sh evenodd.sh
Hello user, Enter a number to check whether it is odd or even: 44
44 is even
```

3. **Write a script to print a table of a given number.**

```
echo "--- Enter Number to Generate Multiplication Table ---"
read -p "Enter the number : " num
i=1
while [ $i -le 10 ]
do
echo " $num * $i = `expr $num \* $i ` "
i=`expr $i + 1`
done
```

```
harsh@Ubuntu:~/Desktop/lab3$ sh table.sh
--- Enter Number to Generate Multiplication Table ---
Enter the number : 13
 13 * 1 = 13
 13 * 2 = 26
 13 * 3 = 39
 13 * 4 = 52
 13 * 5 = 65
 13 * 6 = 78
 13 * 7 = 91
 13 * 8 = 104
 13 * 9 = 117
 13 * 10 = 130
```

4. **Write a shell script to check whether a given no. is prime or not.**

```
read -p "Enter a number: " num
i=2
f=0
while [ $i -le `expr $num / 2` ]
```

```
do
if [ `expr $num % $i` -eq 0 ]
then
f=1
fi
i=`expr $i + 1`
done
if [ $f -eq 1 ]
then
echo "$num is composite (not prime)"
else
echo "$num is Prime"
fi
```

```
harsh@Ubuntu:~/Desktop/lab3$ sh prime.sh
Enter a number: 12
12 is composite (not prime)
harsh@Ubuntu:~/Desktop/lab3$ sh prime.sh
Enter a number: 13
13 is Prime
```

5. **Write a shell script to find the simple interest.**

```
read -p "Enter the principle value: " p
read -p "Enter the rate of interest: " r
read -p "Enter the time period: " t
i=` expr $p \* $t \* $r `
j=` expr $i / 100 `
echo "Simple Interest is: $j"
```

```
harsh@Ubuntu:~/Desktop/lab3$ sh simpleinterest.sh
Enter the principle value: 20000
Enter the rate of interest: 5
Enter the time period: 2
Simple Interest is: 2000
```

6. **Write a shell script to find sum of 'n' numbers.**

```
read -p "How many numbers do you want to sum up : " N
i=1
sum=0
while [ $i -le $N ]
do
  read -p "Enter number $i : " num
  sum=$((sum + num))
  i=$((i + 1))
done
echo "Sum :" $sum
```

```
harsh@Ubuntu:~/Desktop/lab3$ sh nsum.sh
How many numbers do you want to sum up : 6
Enter number 1 : 8
Enter number 2 : 6
Enter number 3 : 9
Enter number 4 : 4
Enter number 5 : 1
Enter number 6 : 3
Sum : 31
```

7. **Write a shell script to find the largest number of three numbers.**

```
read -p "Enter Num1 : " num1
read -p "Enter Num2 : " num2
read -p "Enter Num3 : " num3

if [ $num1 -gt $num2 ] && [ $num1 -gt $num3 ]
then
   echo "The largest numbers among $num1, $num2, $num3 is : "$num1
elif [ $num2 -gt $num1 ] && [ $num2 -gt $num3 ]
then
   echo "The largest numbers among $num1, $num2, $num3 is : "$num2
else
   echo "The largest numbers among $num1, $num2, $num3 is : "$num3
fi
```

```
harsh@Ubuntu:~/Desktop/lab3$ sh largest3.sh
Enter Num1 : 6
Enter Num2 : 8
Enter Num3 : 4
The largest numbers among 6, 8, 4 is : 8
```