

# Lab Assignment-04

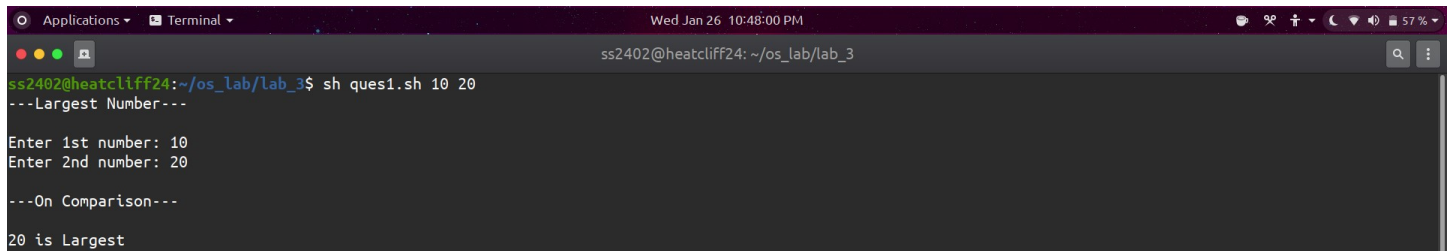
ROLL: 2005535 | NAME: SAHIL SINGH | DATE: 25/01/22

QUES 1: Write a script to find the largest between two numbers using command line argument.

SOLUTION:

```
echo "---Largest Number---\n"
echo "Enter 1st number: $1"
echo "Enter 2nd number: $2"
echo "\n---On Comparison---\n"
if test $1 -gt $2
then
    echo "$1 is Largest\n"
else
    echo "$2 is Largest\n"
fi
```

OUTPUT:



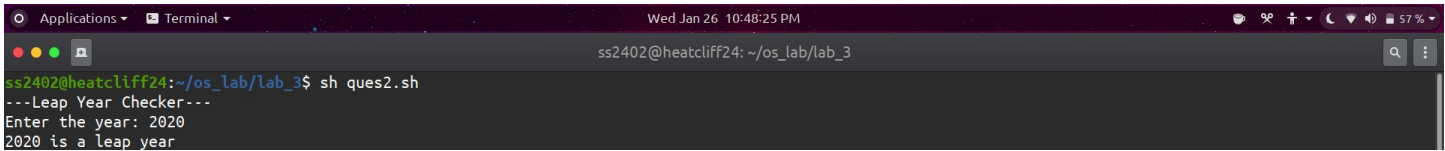
```
ss2402@heatcliff24:~/os_lab/lab_3$ sh ques1.sh 10 20
---Largest Number---
Enter 1st number: 10
Enter 2nd number: 20
---On Comparison---
20 is Largest
```

QUES 2: Write a script to determine whether a year entered through the keyboard is a leap year or not.

SOLUTION:

```
echo "---Leap Year Checker---"
read -p "Enter the year: " year
div4=`expr $year % 4`
div100=`expr $year % 100`
div400=`expr $year % 400`
if [ $div400 -eq 0 ]
then
    echo "$year is a leap year"
else
    if [ $div100 -eq 0 ]
    then
        echo "$year is not a leap year"
    elif [ $div4 -eq 0 ]
    then
        echo "$year is a leap year"
    else
        echo "$year is not a leap year"
    fi
fi
```

OUTPUT:



```

ss2402@heatcliff24:~/os_lab/lab_3$ sh ques2.sh
---Leap Year Checker---
Enter the year: 2020
2020 is a leap year

```

QUES 3: Write a script to find the area of a triangle by passing 3 sides of the triangle and check the triangle is possible or not.

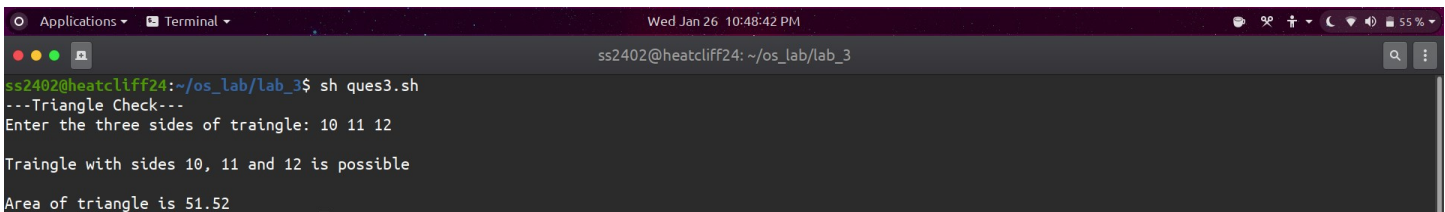
SOLUTION:

```

echo "---Triangle Check---"
read -p "Enter the three sides of traingle: " side1 side2 side3
if [ `expr $side1 + $side2` -gt $side3 -a `expr $side1 + $side3` -gt $side2 -a `expr $side2 + $side3` -gt $side1 ]
then
    echo "\nTraingle with sides $side1, $side2 and $side3 is possible\n"
    semi=`echo "scale=2; ($side1+$side2+$side3)/2" | bc`
    area=`echo "scale=2; sqrt($semi*($semi-$side1)*($semi-$side2)*($semi-$side3))" | bc`
    echo "Area of triangle is $area"
else
    echo "\nTraingle with sides $side1, $side2 and $side3 is not possible\n"
fi

```

OUTPUT:



```

ss2402@heatcliff24:~/os_lab/lab_3$ sh ques3.sh
---Triangle Check---
Enter the three sides of traingle: 10 11 12

Traingle with sides 10, 11 and 12 is possible

Area of triangle is 51.52

```

QUES 4: Write a script to check the number is odd or even.

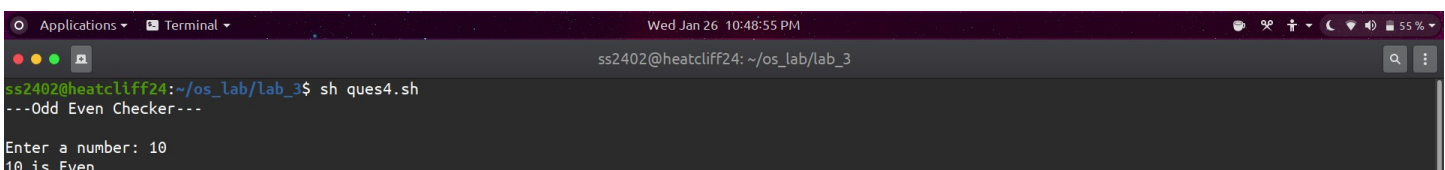
SOLUTION:

```

echo "---Odd Even Checker---\n"
read -p "Enter a number: " num
if [ `expr $num % 2` -eq 0 ]
then
    echo "$num is Even"
else
    echo "$num is Odd"
fi

```

OUTPUT:



```

ss2402@heatcliff24:~/os_lab/lab_3$ sh ques4.sh
---Odd Even Checker---

Enter a number: 10
10 is Even

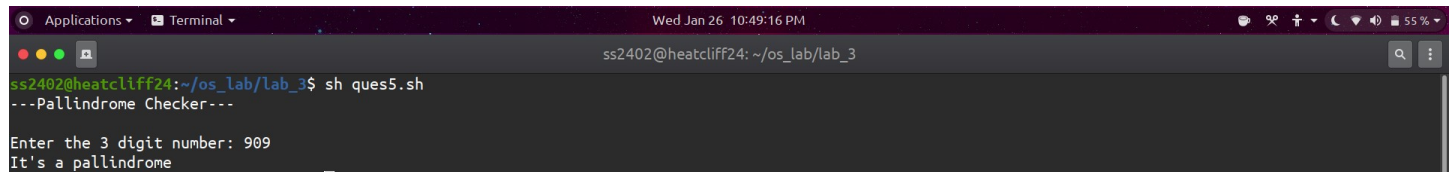
```

QUES 5: Write a script to check the number is palindrome or not of 3 digit number.

SOLUTION:

```
echo "---Pallindrome Checker---\n"
read -p "Enter the 3 digit number: " num1
a=`expr $num1 / 100`
b=`expr $num1 % 100`
c=`expr $b / 10`
d=`expr $b % 10`
e=$((d * 100))
f=$((c * 10))
num2=$((a + e + f))
if [ $num1 -eq $num2 ]
then
    echo "It's a pallindrome"
else
    echo "Not a pallindrome"
fi
```

OUTPUT:



```
Applications Terminal
Wed Jan 26 10:49:16 PM
ss2402@heatcliff24: ~/os_lab/lab_3
ss2402@heatcliff24:~/os_lab/lab_3$ sh ques5.sh
---Pallindrome Checker---
Enter the 3 digit number: 909
It's a pallindrome
```

