RAJSHAHI UNIVERSITY OF ENGINEERING & TECHNOLOGY

Department of Computer Science & Engineering

LAB REPORT

Topic: Shell Script (Conditional Statements, Loops)

Course No: CSE 3202

Course Name: Sessional Based on Operating Systems

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Contents

Program No. 1

Program Topic: Arithmetic Operations

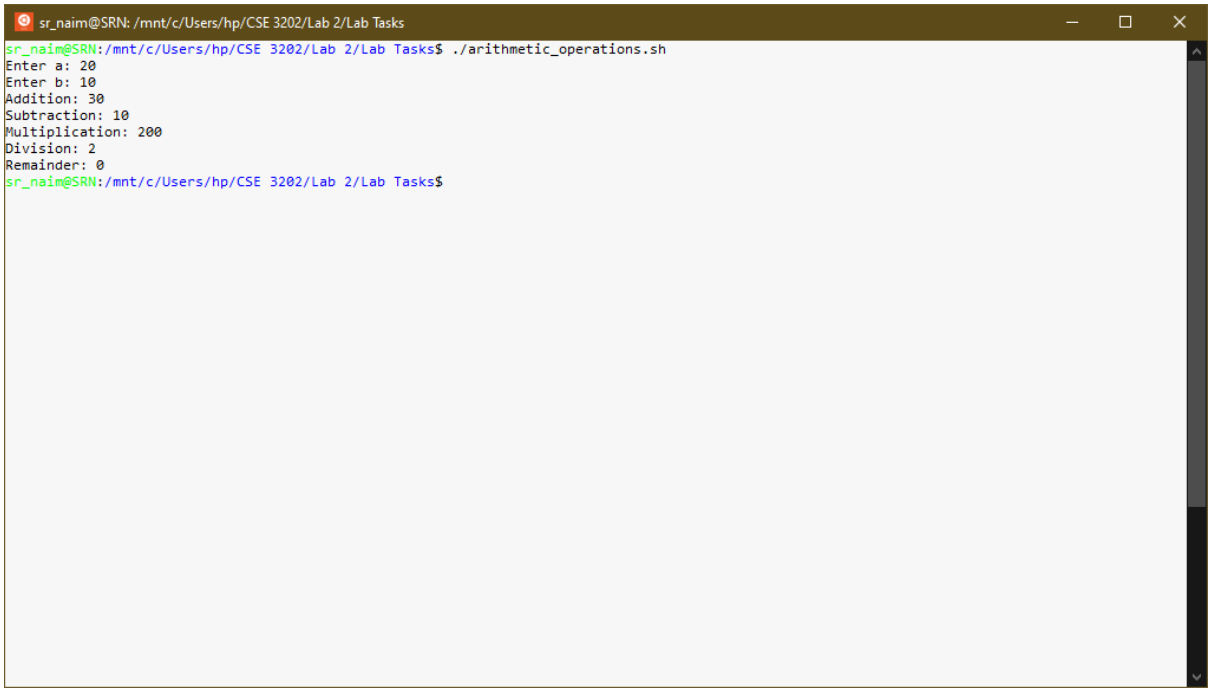
CODE

```
#! /bin/bash

read -p "Enter a: " a
read -p "Enter b: " b

echo "Addition:" $((a+b))
echo "Subtraction:" $((a-b))
echo "Multiplication:" $((a*b))
echo "Division:" $((a/b))
echo "Remainder:" $((a%b))
```

OUTPUT



Program No. 2

Program Topic: Even/ Odd Determination

CODE

```
#! /bin/bash

read -p "Enter an integer: " x

if [ $((x%2)) -eq 0 ]
        then
        echo $x is even
else
        echo $x is odd
fi
```

OUTPUT

Program No. 3

Program Topic: Generating Prime Numbers within a Range.

CODE

```
#! /bin/bash
c=0
read -p "Enter starting number: " s
read -p "Enter ending number: " e

for ((i=s;i<=e;i++))
        do
        for ((j=2;j<i;j++))
                do
                if [ $((i%j)) -eq 0 ]
                        then
                        c=$((c+1))
                fi
        done
        if [ $c -eq 0 ] && [ $i -ne 1 ]
                then
                echo $i
        fi
        c=0
done
```

OUTPUT

Discussion:

- To read user input with a prompt message we use this command.

```
read -p "Message" variable
```

- To calculate arithmetic operations, we need to use double first brackets followed by a dollar sign

```
$((a+b))
```

- For if else conditioning, we need to be careful about the condition and bracket orientation. There must a space after the starting and before the ending of 3rd bracket

```
if [ condition ]
        then
        #code
else
        #code
fi
```

- For loop operations, indexing is mandatory as no brackets are used.

```
for ((start;condition;stepsize))
        do
        #code
done
```