**LINUX & Shell Programming Lab Assignment – 06**

**[Your home directory is your current working directory]**

1. Write a shell script to calculate the sum of two numbers

#!/bin/bash

echo "enter the first number"

read num1

echo "enter the second number"

read num2

sum=`expr $num1 + $num2`

echo "sum is: $sum"

**OUTPUT:-**

pc-171@gehu-HP-EliteDesk-800-G2-SFF:~/Desktop/RAWATAMIT$ bash 6a.sh

enter the first number

7

enter the second number

5

sum is: 12

1. Write a shell script to calculate velocity using **V= u + a\*t.**

#!/bin/bash

echo "enter the u"

read u

echo "enter the a"

read a

echo "enter the t"

read t

vel=`expr $u + $a \\* $t`

echo "velocity is: $vel"

**OUTPUT:-**

pc-171@gehu-HP-EliteDesk-800-G2-SFF:~/Desktop/RAWATAMIT$ bash 6b.sh

enter the u

5

enter the a

5

enter the t

5

velocity is: 30

1. Write a shell script to compute the formula **S= u\*t + (1/2) \* g \* t2.**

#!/bin/bash

g=9.8

echo "enter the u"

read u

echo "enter the t"

read t

S=$(bc <<<"$u \* $t + $g \* $t \* $t \* 1/2")

echo "total distance is: $S"

**OUTPUT:-**

pc-171@gehu-HP-EliteDesk-800-G2-SFF:~/Desktop/RAWATAMIT$ bash 6c.sh

enter the u

5

enter the t

6

total distance is: 206

1. Write a shell script to counts number of lines, words and characters in a file.

#!/bin/bash

echo "Enter file name: "

read filename

echo "Number of lines= "

wc -l $filename

echo "Number of words= "

wc -w $filename

echo "Number of characters= "

wc -m $filename

**OUTPUT:-**

pc-171@gehu-HP-EliteDesk-800-G2-SFF:~/Desktop/RAWATAMIT$ bash 6d.sh

Enter file name:

foo.txt

Number of lines=

4 foo.txt

Number of words=

4 foo.txt

Number of characters=

17 foo.txt

1. Write a shell script to calculate the area of a rectangle.

#!/bin/bash

echo "Enter length of rectangle: "

read l

echo "Enter breadth of rectangle: "

read b

A=$(($l\*$b))

echo "Area= $A"

**OUTPUT:-**

pc-171@gehu-HP-EliteDesk-800-G2-SFF:~/Desktop/RAWATAMIT$ bash 6e.sh

Enter length of rectangle:

6

Enter breadth of rectangle:

4

Area= 24

1. Write a shell script to calculate the area of a circle.

#!/bin/bash

echo "Enter radius: "

read r

A=`expr 3.14\*$r\*$r | bc -l`

echo "Area= $A"

**OUTPUT:-**

pc-171@gehu-HP-EliteDesk-800-G2-SFF:~/Desktop/RAWATAMIT$ bash 6f.sh

Enter radius:

2

Area= 12.56

1. Write a shell script to swap two numbers using a temporary variable.

#!/bin/bash

echo "enter the first number"

read num1

echo "enter the second number"

read num2

temp=$num1

num1=$num2

num2=$temp

echo "after swap"

echo "num1 is: $num1"

echo "num2 is: $num2"

**OUTPUT:-**

pc-171@gehu-HP-EliteDesk-800-G2-SFF:~/Desktop/RAWATAMIT$ bash 6g.sh

enter the first number

11

enter the second number

6

After swap

num1 is: 6

num2 is: 11

1. Write a shell script to swap two numbers without using a temporary variable.

#!/bin/bash

echo "enter the first number"

read num1

echo "enter the second number"

read num2

num1=`expr $num1 + $num2`

num2=`expr $num1 - $num2`

num1=`expr $num1 - $num2`

echo "after swap"

echo "num1 is: $num1"

echo "num2 is: $num2"

**OUTPUT:-**

pc-171@gehu-HP-EliteDesk-800-G2-SFF:~/Desktop/RAWATAMIT$ bash 6h.sh

enter the first number

6

enter the second number

11

After swap

num1 is: 11

num2 is: 6

1. Write a shell script to calculate gross salary using the formula

***Gross Salary = Basic Salary + DA + TA + HRA.***

#!/bin/bash

echo "enter the basic salary"

read bs

echo "enter the DA"

read da

echo "enter the TA"

read ta

echo "enter the HRA"

read hra

gross\_salary=`expr $bs + $da + $ta + $hra`

echo "Gross Salary is: $gross\_salary"

**OUTPUT:-**

pc-171@gehu-HP-EliteDesk-800-G2-SFF:~/Desktop/RAWATAMIT$ bash 6i.sh

enter the basic salary

5000

enter the DA

100

enter the TA

100

enter the HRA

100

Gross Salary is: 5300

1. Write a shell script to concatenate two given strings and then calculate the length of the concatenated string.

#!/bin/bash

echo "enter the first string"

read str1

echo "enter the second string"

read str2

concat=$str1

concat+=$str2

echo "string is: $concat"

**OUTPUT:-**

pc-171@gehu-HP-EliteDesk-800-G2-SFF:~/Desktop/RAWATAMIT$ bash 6j.sh

enter the first string

amit

enter the second string

rwt

string is: amitrwt