Practical 5: Write a shell Program to do the sum of two inputted numbers.

Code:

- Create a file called sumfile . Go to the nano sumfile and write the following script:

  #!/bin/bash echo “Enter 1st number: “; read first_number

  echo “Enter 2nd number: “; read second_number

  sum=$(($first_number + $second_number)) echo “Sum of

  $first_number and $second_number: $sum”;

- Now run the script ./sumfile.sh
- If permissions denied make a file executable by chmod +x sumfile.sh
- **OutPut:**

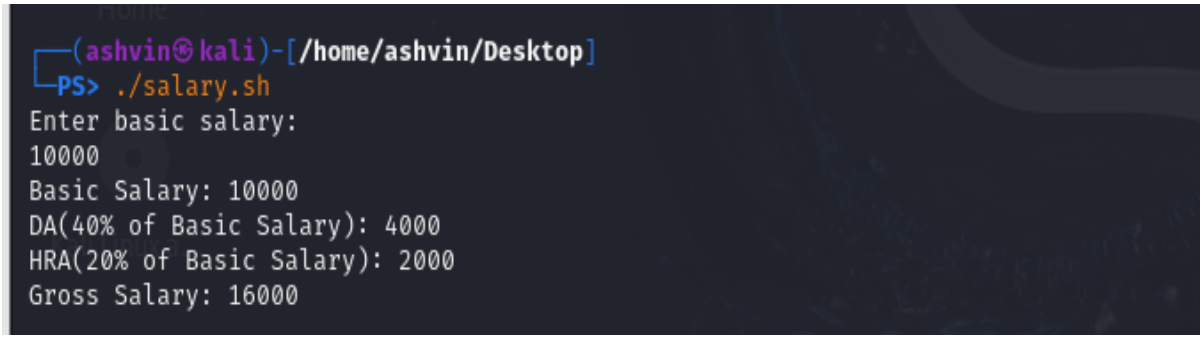
Practical 6: An employee basic salary is input through keyboard where DA is 40% of basic salary and HRA is 20% of basic salary. write a program to calculate gross salary.

Script:

```
#!/bin/bash
# Prompt the user to enter the basic salary
        echo “Enter the basic salary:”;
         read basic_salary
# Calculate DA as 40% of basic salary
        da=$((basic_salary * 40 / 100))
```

```
# Calculate HRA as 20% of basic salary
        hra=$((basic_salary * 20 / 100))
# Calculate Gross Salary gross_salary=$((basic_salary +
        da + hra))
# Display the results echo “Basic Salary:
$basic_salary”; echo “DA (40% of Basic Salary): $da”;
echo “HRA (20% of Basic Salary): $hra”; echo “Gross
Salary: $gross_salary”;
```

Output:



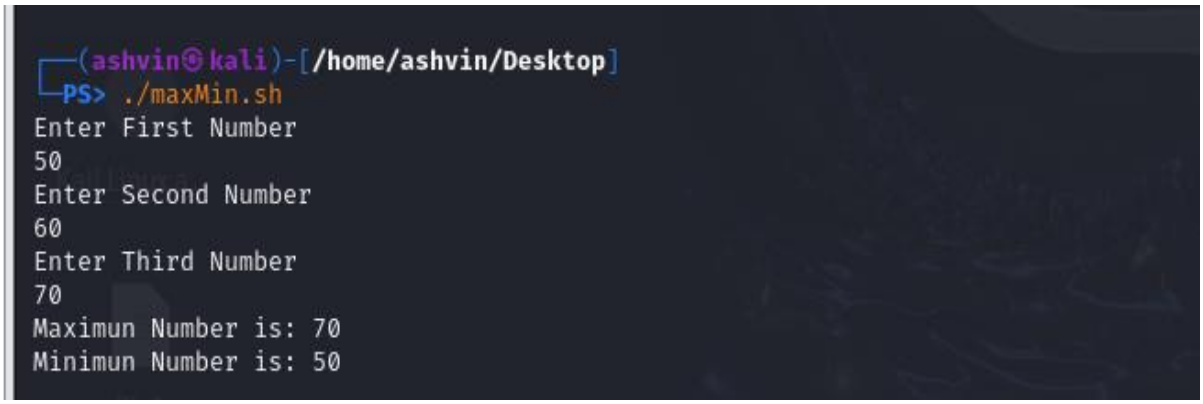
Practical 7: Write a shell Program to find maximum and minimum from three values.

Code:

```
#!/bin/bash
# Prompt the user to enter three numbers
        echo “Enter the first number:”; read
        num1
        echo “Enter the second number:”;
        read num2
        echo “Enter the third number:”; read
        num3
# Find the maximum number
max=$num1
if [ $num2 -gt $max ]; then
```

```
        max=$num2
        fi
        if [ $num3 -gt $max ]; then
        max=$num3
        fi
# Find the minimum number min=$num1
        if [ $num2 -lt $min ]; then
        min=$num2
        fi
        if [ $num3 -lt $min ]; then
        min=$num3
        fi
# Display the results echo “The maximum
value is: $max”; echo “The minimum value is:
$min”;
```

Output:



Practical 8: Write a shell script in Linux to find given number is even or odd?

Code:

```
#!/bin/bash
```

```
# Prompt the user to enter a number
        echo “Enter a number:”; read
        number
# Check if the number is even or odd if [
        $((number % 2)) -eq 0 ]; then echo
        “The number $number is Even”; else
        echo “The number $number is Odd.” fi
```

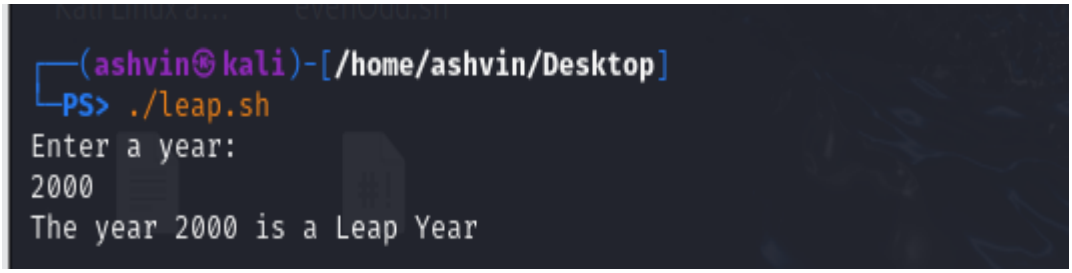
Output:

Practical 9: Write a shell script in Linux Find Given year Is Leap year Or Not.

Code:

```
        #!/bin/bash
        # Prompt user to enter a year read -
        p “Enter a year: “year
# Check if the year is divisible by 4, but not divisible by 100 unless divisible by
400
if [[ ( $((year % 4)) -eq 0 ) &amp;amp;&amp;amp; ( $((year % 100)) -ne 0 || $((year %
400)) -eq 0 ) ]] then
echo “The year $year is a Leap year.”;
else
echo “The year $year is not a Leap year.”;
```

Output:



Practical 10: Write a shell program to find out how many terminals have users logged in.

Code:

```
#!/bin/bash
logged_in_terminals=$(who | awk'{print $2}' | sort | uniq)
terminal_count=$(echo "$logged_in_terminals" | wc -l) echo "Number of
terminals with users logged in: $terminal_count";
```

Output:

Practical 11: Write a script to count no of line, words and characters of a inputted file.

Code:

```
#! /bin/bash
echo &" Enter the filename:"; read
filename
if [[ -f "$filename"]]; then #Tests if the file exists and is a regular file
(not a directory or other type of file).
echo "$filename is regular file (not a directory or other type of file)"
wc "$filename"; else
echo" File does not
exist."; fi
```

Output:

```
┌──(ashvin㉿kali)-[/home/ashvin/Desktop]
└─PS> ./f1.sh
Enter the filename:
evenOdd.sh
evenOdd.sh is a regular file (not a directory or other type of file)
  9  28 156 evenOdd.sh
```

Practical 12: Write a shell Program to find length of a given string.

Code: #!/bin/bash echo “Enter a string:”; read

input_string # Find the length of the string

length=${#input_string} echo “Length of the

string is: $length”;

Output:

```
┌──(ashvin㉿kali)-[/home/ashvin/Desktop]
└─PS> ./find.sh
Enter a string:
Hello World
Length of the string is: 11
```

Practical 13: Write a shell Program to find out the factorial of input.

Code: #!/bin/bash

echo “Enter a number to find its factorial:”;

read num

if [$num -lt 0]; then

echo “Factorial is not defined for negative numbers.”; exit 1

fi

factorial=1 i=1

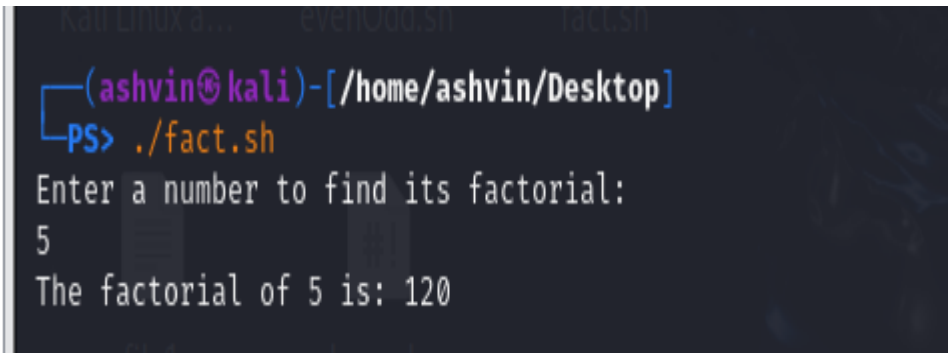
while [$i -le $num]

factorial=$((factorial * i)) && i=$((i + 1))

echo “The factorial of $num is: $factorial”; echo “The

factorial of $num is: $factorial”;

Output:



Practical 14: Write a shell program to reverse a given 5 digit number.

#!/bin/bash

echo “Enter a 5-digit number:”; read

num

reversed=$(echo $num | rev) echo “The

reversed number is: $reversed”;

Output

Practical 15: Write a shell program to check inputted number is palindrome or not?.

echo “Enter the number”; read

n

function pal

```
{
number=$n reverse=0
while [ $n -gt 0 ] do a=`expr $n % 10
` n=`expr $n / 10 ` reverse=`expr
$reverse \* 10 + $a` done echo
$reverse if [ $number -eq $reverse ]
then
echo “Number is palindrome”; else
echo “Number is not palindrome”; fi
}
r=`pal $n` echo
“$r”;
```

Output