Name: Akash Singh Rawat
Course: BCA(C2)
RollNo.: 7 (2221105)

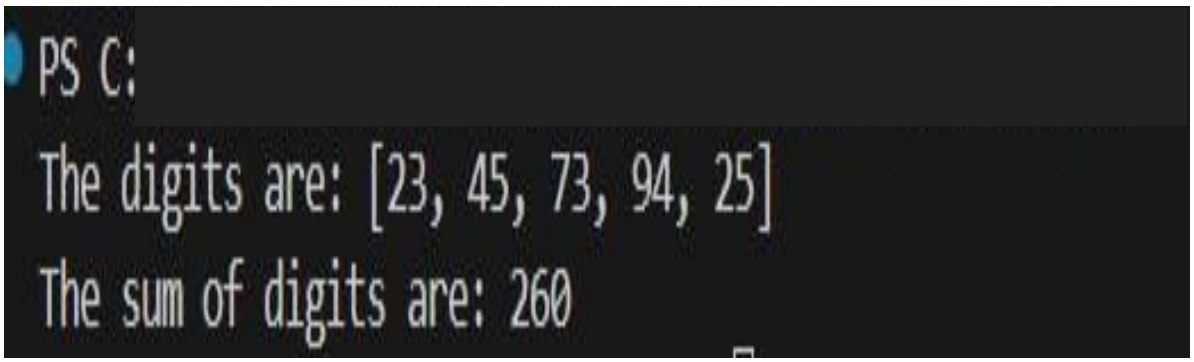
PRACTICAL NO.:- 09

PROBLEM STATEMENT:- Write a Python program to find the sum of digits using user defined function.

SOURCE CODE:-

```
def digitOf_sum(number):
  sum = 0 for num in
  number:
    sum += num
  return sum
number = [23, 45, 73, 94, 25]
print("The digits are:",number)
result = digitOf_sum(number)
print("The sum of digits are:",result)
```

OUTPUT:



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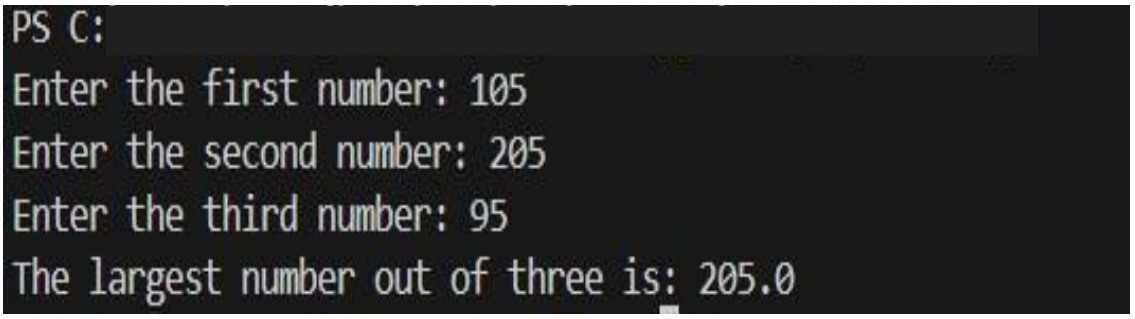
PRACTICAL NO.:- 10

PROBLEM STATEMENT:- Write a Python program to find the largest of three numbers using user defined function. SOURCE

CODE:-

```
def largest_OfThree(num1, num2, num3):
largest = num1 if
num2 > largest:
    largest = num2
if num3 > largest:
    largest = num3
return largest
number1 = float(input("Enter the first number: ")) number2 =
float(input("Enter the second number: ")) number3 =
float(input("Enter the third number: ")) largest_number =
largest_OfThree(number1, number2, number3) print("The largest
number is: {largest_number}")
```

OUTPUT:



Name: Akash Singh Rawat
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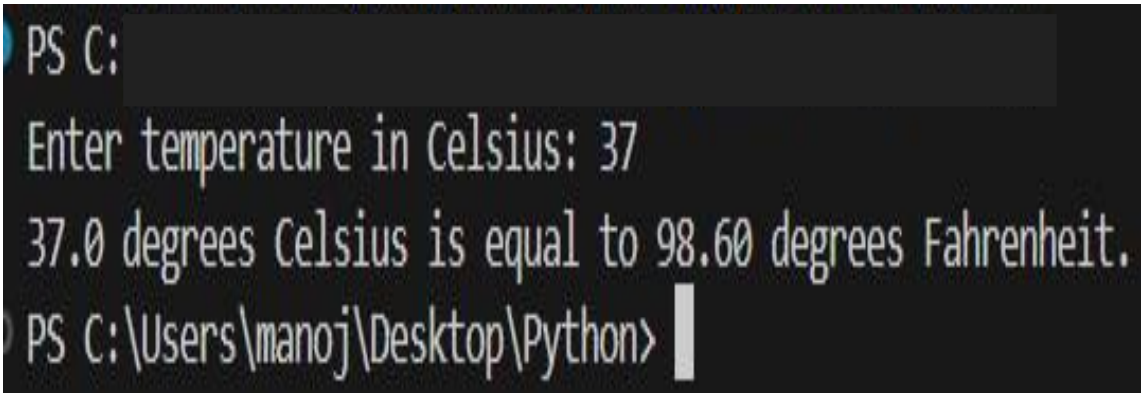
PRACTICAL NO.:- 11

PROBLEM STATEMENT:- Write a Python program to find the conversion(Celsius to Fahrenheit) using user defined function.

SOURCE CODE:-

```
def  celsius_to_fahrenheit(celsius):
 fahrenheit = (celsius * 9/5) + 32
 return fahrenheit
celsius_value = float(input("Enter temperature in Celsius: ")) fahrenheit_value
= celsius_to_fahrenheit(celsius_value)
print(f"{celsius_value} degrees Celsius is equal to:{fahrenheit_value:.2f} degrees Fahrenheit.")
```

OUTPUT:



Name: Akash Singh Rawat
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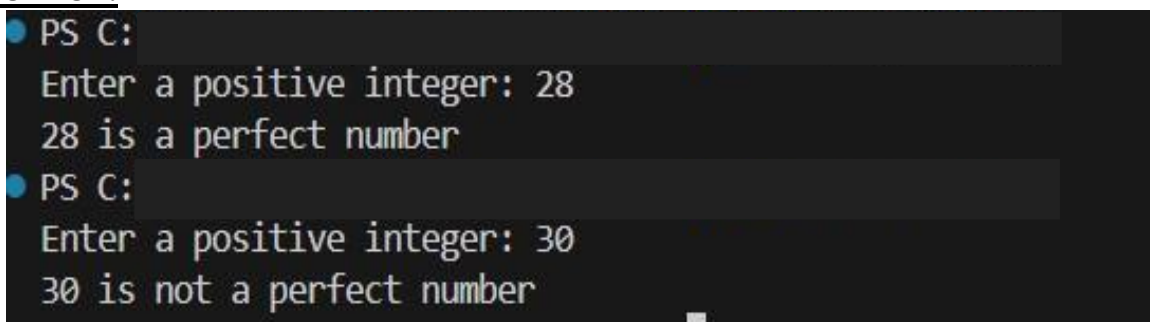
PRACTICAL NO.:- 12

PROBLEM STATEMENT:- Write a Python program to find the number entered by user is perfect or not using user defined function.

SOURCE CODE:-

```
def perfect_num(number):
   if number <= 1:
    return False
divisor=    1    for    i    in    range(2,
int(number**0.5) + 1):
    if number % i == 0:
      divisor += i if i * i
      != number:
        divisor += number // i
return divisor == number
number = int(input("Enter a positive integer: ")) if
perfect_num(number):
  print(f"{number} is a perfect number")
else:
  print(f"{number} is not a perfect number")
```

OUTPUT:



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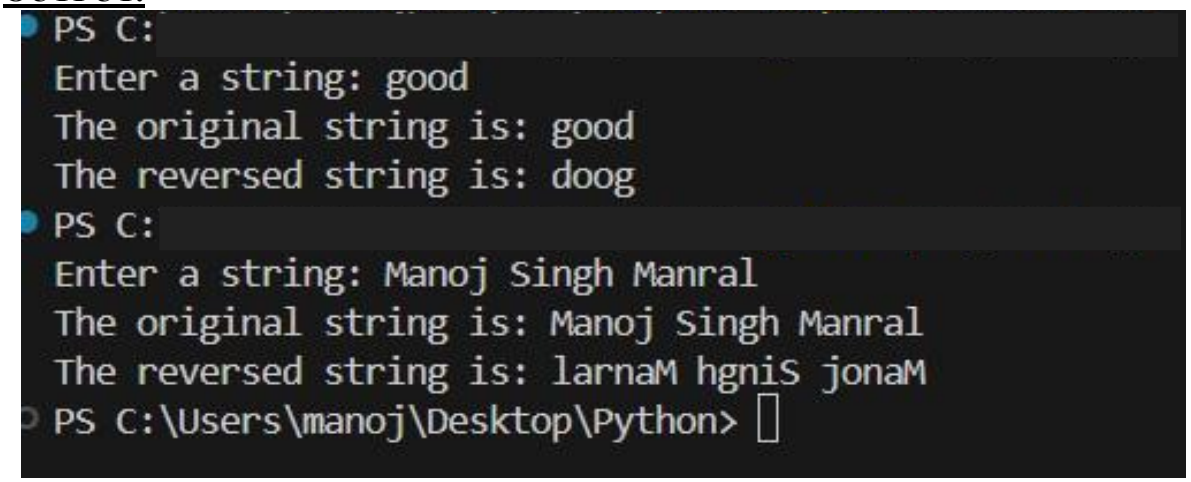
PRACTICAL NO.:- 13

PROBLEM STATEMENT:- Write a Python program to find reverse of a string using user defined function.

SOURCE CODE:-

```
def reverse_string(String):
    return String[::-1]
user_String = input("Enter a string: ")
reversed_string = reverse_string(user_String)
print("The original string is:",user_String)
print("The reversed string is:", reversed_string)
```

OUTPUT:



Name: Akash Singh Rawat
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RollNo.: 7 (2221105)

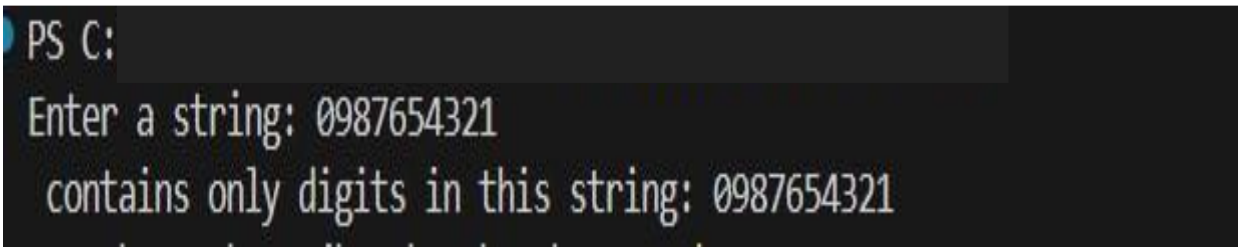
PRACTICAL NO.:- 14

PROBLEM STATEMENT:- Write a Python program to find a string only contain digits using user defined function.

SOURCE CODE:-

```
def Check_digits(string): return
 string.isdigit()
my_string = input("Enter a string: ") if
Check_digits(my_string):
  print(" contains only digits in this string:",my_string)
else:
  print("does not contain any digits in the string:",my_string)
```

OUTPUT:



Name: Akash Singh Rawat
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PRACTICAL NO.:- 15

PROBLEM STATEMENT:- Write a Python program to count occurrences of character in a string using user defined function.

SOURCE CODE:-

```
def count_char_occurrences(string, char):
  count = 0 for c
  in string:
    if c == char:
      count += 1
  return count
my_string = input("Enter a string: ")
char_to_count = input("Enter a character to count: ")
character_count = count_char_occurrences(my_string, char_to_count)
print(f"The character '{char_to_count}' appears {character_count} times in '{my_string}'.")
```

OUTPUT

```
Enter a string: heloo i am Bca student 4th semester
Enter a character to count: s
The character 's' appears 3 times in 'heloo i am Bca student 4th semester'.
```

:

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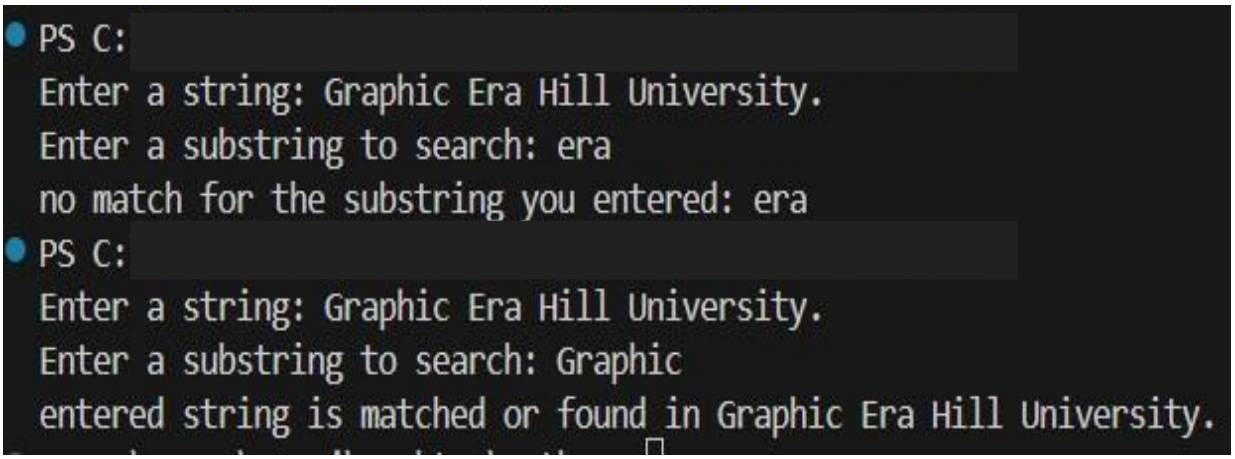
PRACTICAL NO.:- 16

PROBLEM STATEMENT:- Write a Python program to find if a string contain substring using user defined function.

SOURCE CODE:-

```
def String_substring(string, substring): return
 substring in string
my_string = input("Enter a string: ") sub_string =
input("Enter a substring to search: ")
  if String_substring(my_string, sub_string):
  print("entered string is matched or found in",my_string)
else:
  print("no match for the substring you entered:",sub_string)
```

OUTPUT:



Name: Akash Singh Rawat
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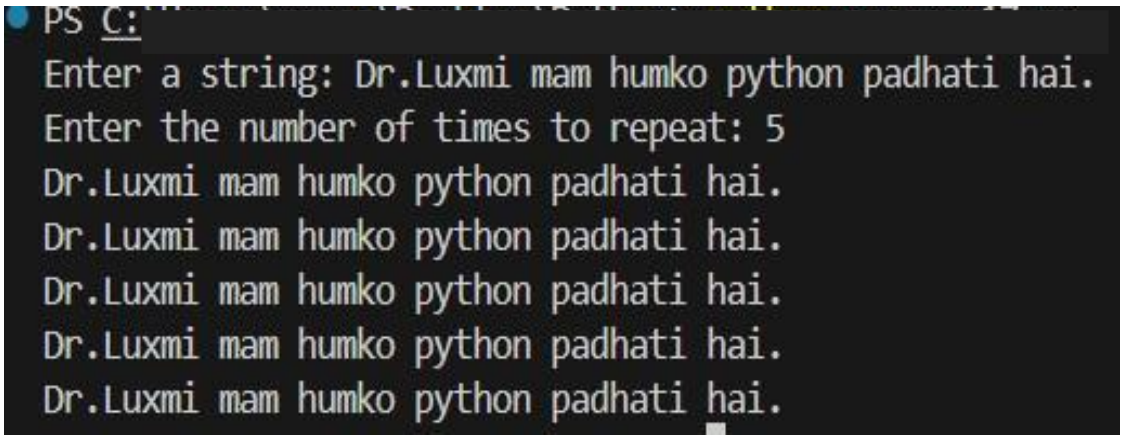
PRACTICAL NO.:- 17

PROBLEM STATEMENT:- Write a Python program to check if a string contain substring using user defined function.

SOURCE CODE:-

```
def repeat_string(text, num_repeats):
for _ in range(num_repeats):
    print(text)
my_text = input("Enter a string: ")
num_repeats = int(input("Enter the number of times to repeat: ")) repeat_string(my_text,
num_repeats)
```

OUTPUT:



Name: Akash Singh Rawat
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PRACTICAL NO.:- 18

PROBLEM STATEMENT:- Write a Python program to find the sum and average of list items using user defined function.

SOURCE CODE:-

```
def
 calculate_sum_and_average(numbers):  if
 not numbers: return (0, 0)
total_sum = sum(numbers) average
= total_sum / len(numbers)  return
(total_sum, average)
numbers_list = [float(x) for x in input("Enter numbers separated by space: ").split()]
total_sum, average = calculate_sum_and_average(numbers_list) print(f"Sum of the
list: {total_sum}") print(f"Average of the list: {average:.2f}")
```

OUTPUT:

Name: Akash Singh Rawat
Course: BCA(C2)
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PRACTICAL NO.:- 19

PROBLEM STATEMENT:- Write a Python program to check whether the number is prime or not using user defined function.

SOURCECODE:

```
- def is_prime(n):
if n <= 1: return
False
if n <= 3: return
 True
if n % 2 == 0 or n % 3 == 0:
  return False
i = 5 while i * i
<= n:
  if n % i == 0 or n % (i + 2) == 0:
   return False
i    +=    6
return True
number = int(input("Enter a number: "))
if is_prime(number):
print(f"{number} is a prime number.")
else: print(f"{number} is not a prime
 number.")
```

OUTPUT: