

Name: Akash Singh Rawat

Course: BCA(C2)

RollNo.: 7 (2221105)

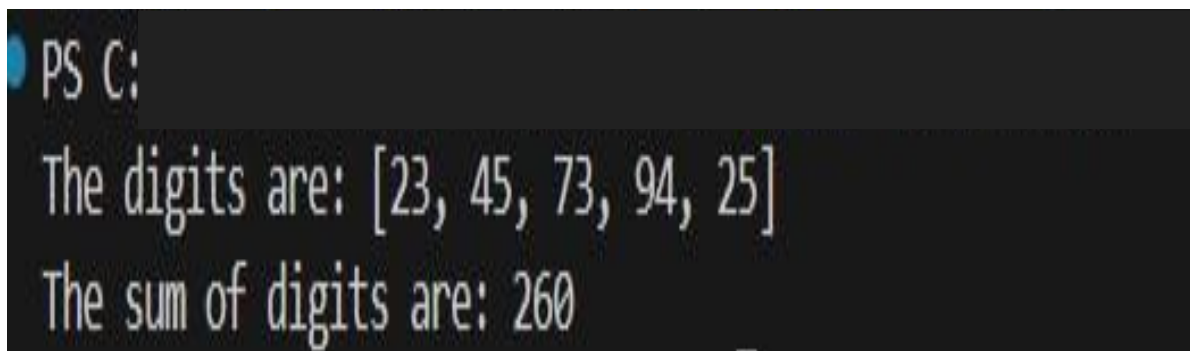
PRACTICAL NO.:- 09

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:



```
PS C:  
The digits are: [23, 45, 73, 94, 25]  
The sum of digits are: 260
```

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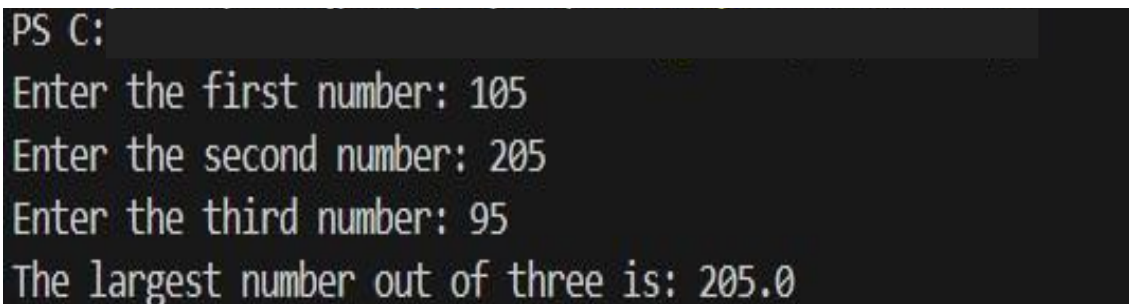
PRACTICAL NO.:- 10

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:



```
PS C:  
Enter the first number: 105  
Enter the second number: 205  
Enter the third number: 95  
The largest number out of three is: 205.0
```

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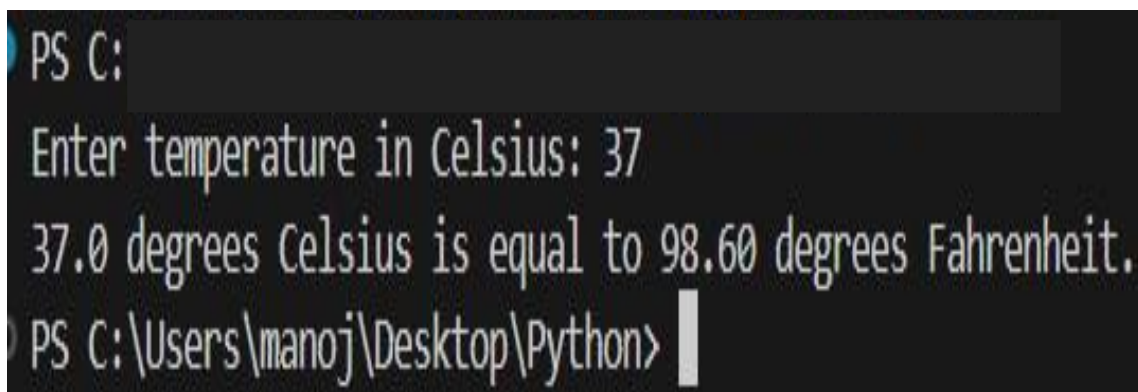
PRACTICAL NO.:- 11

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:



```
PS C:  
Enter temperature in Celsius: 37  
37.0 degrees Celsius is equal to 98.60 degrees Fahrenheit.  
PS C:\Users\manoj\Desktop\Python>
```

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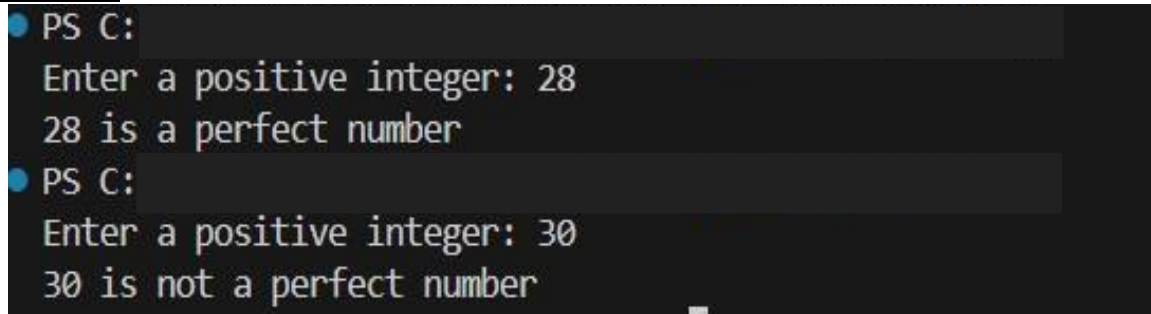
PRACTICAL NO.:- 12

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:



```
PS C:  
Enter a positive integer: 28  
28 is a perfect number  
PS C:  
Enter a positive integer: 30  
30 is not a perfect number
```

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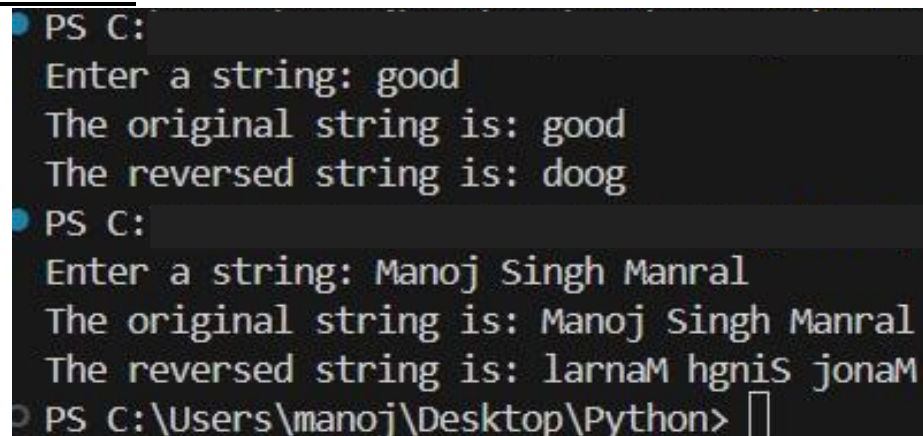
PRACTICAL NO.:- 13

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:



```
PS C:  
Enter a string: good  
The original string is: good  
The reversed string is: doog  
PS C:  
Enter a string: Manoj Singh Manral  
The original string is: Manoj Singh Manral  
The reversed string is: larnaM hgniS jonaM  
PS C:\Users\manoj\Desktop\Python>
```

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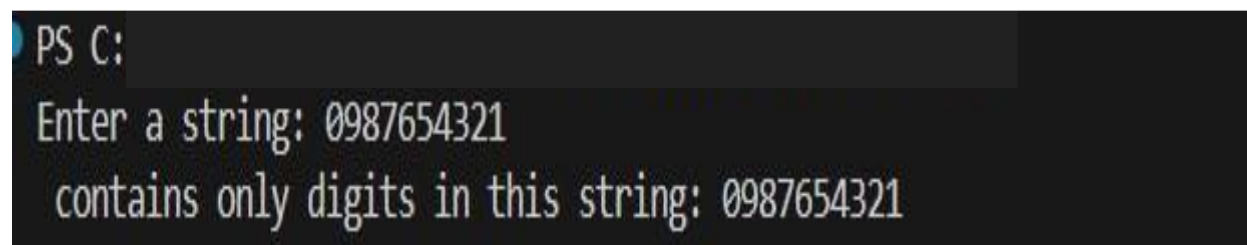
PRACTICAL NO.:- 14

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:



```
PS C:
Enter a string: 0987654321
contains only digits in this string: 0987654321
```

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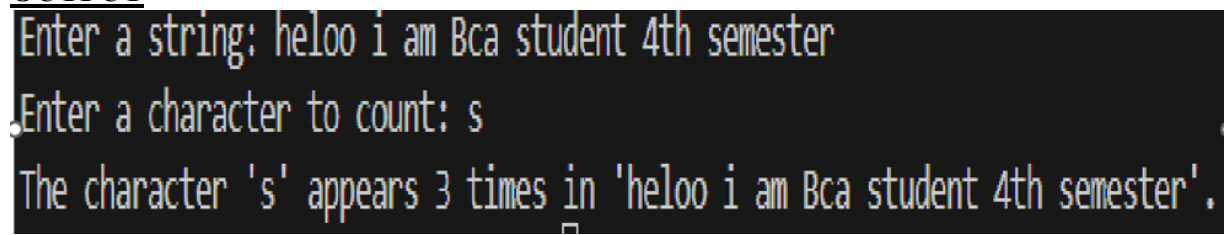
PRACTICAL NO.:- 15

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

A screenshot of a terminal window showing the execution of a Python program. The first prompt is "Enter a string: heloo i am Bca student 4th semester". The second prompt is "Enter a character to count: s". The final output line is "The character 's' appears 3 times in 'heloo i am Bca student 4th semester'.".

```
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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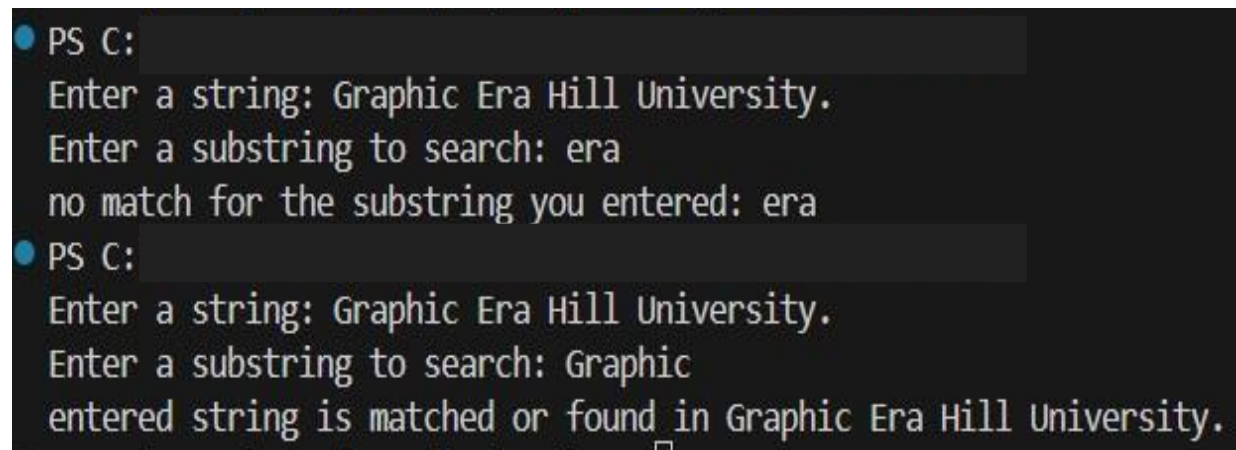
PRACTICAL NO.:- 16

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:



```
PS C:
Enter a string: Graphic Era Hill University.
Enter a substring to search: era
no match for the substring you entered: era
PS C:
Enter a string: Graphic Era Hill University.
Enter a substring to search: Graphic
entered string is matched or found in Graphic Era Hill University.
```


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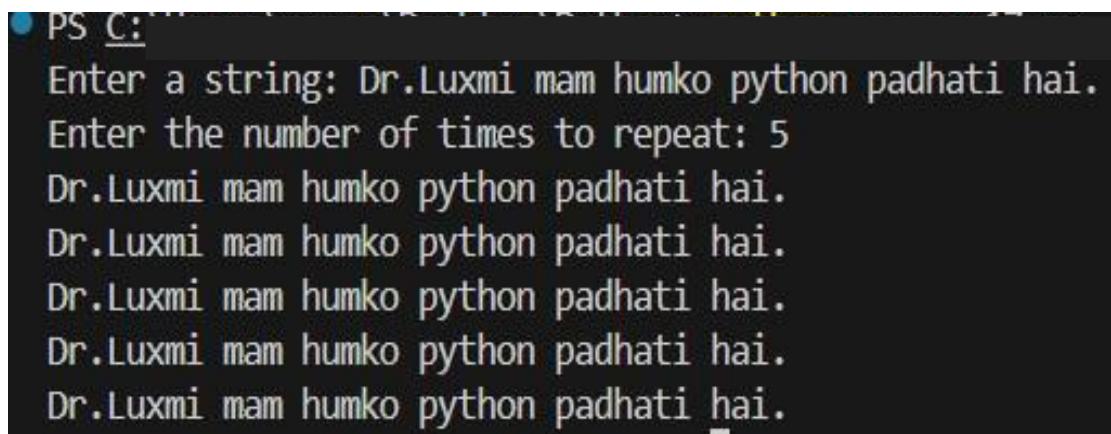
PRACTICAL NO.:- 17

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:



```
PS C:  
Enter a string: Dr.Luxmi mam humko python padhati hai.  
Enter the number of times to repeat: 5  
Dr.Luxmi mam humko python padhati hai.  
Dr.Luxmi mam humko python padhati hai.  
Dr.Luxmi mam humko python padhati hai.  
Dr.Luxmi mam humko python padhati hai.  
Dr.Luxmi mam humko python padhati hai.
```

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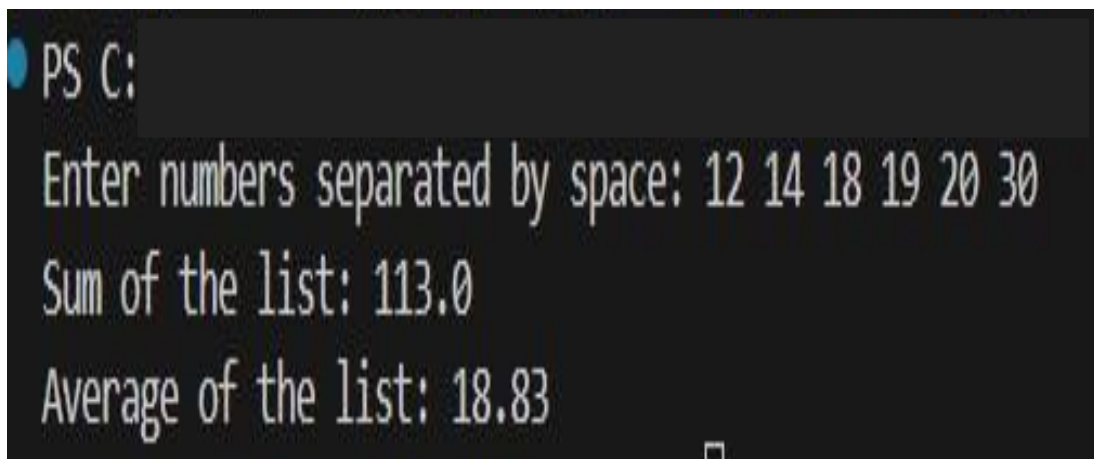
PRACTICAL NO.:- 18

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:



```
PS C:  
Enter numbers separated by space: 12 14 18 19 20 30  
Sum of the list: 113.0  
Average of the list: 18.83
```

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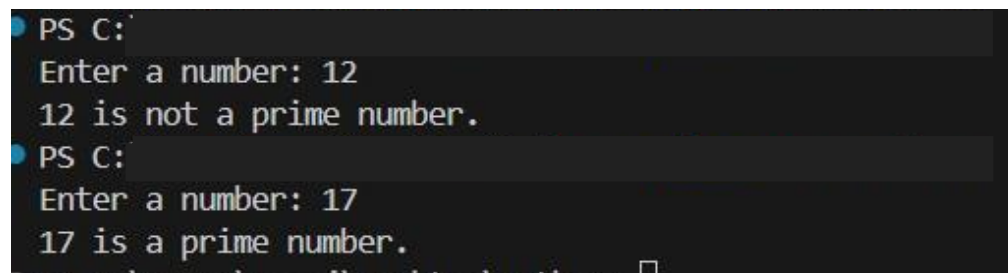
PRACTICAL NO.:- 19

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:



```
PS C:\Users\user> python3  
Enter a number: 12  
12 is not a prime number.  
PS C:\Users\user> python3  
Enter a number: 17  
17 is a prime number.  
PS C:\Users\user>
```