GANPAT UNIVERSITY
U. V. PATEL COLLEGE OF ENGINEERING
B.Tech CE/IT Semester IV
2CEIT404: Python Programming

Practical-6: Function(UDF)

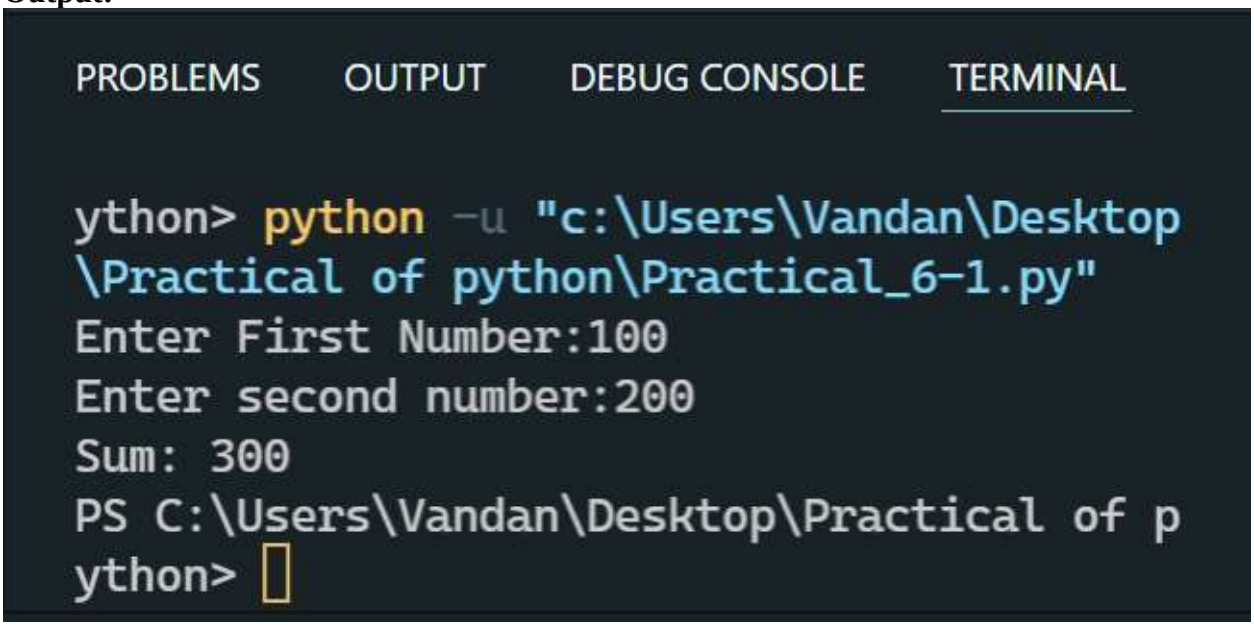
1. Write a program to perform addition of two numbers using user defined function.

Code:

```
def add_num(num1,num2):
    sum=num1+num2
    return sum

num1=int(input("Enter First Number:"))
num2=int(input("Enter second number:"))
print("Sum:",add_num(num1,num2))
```

Output:



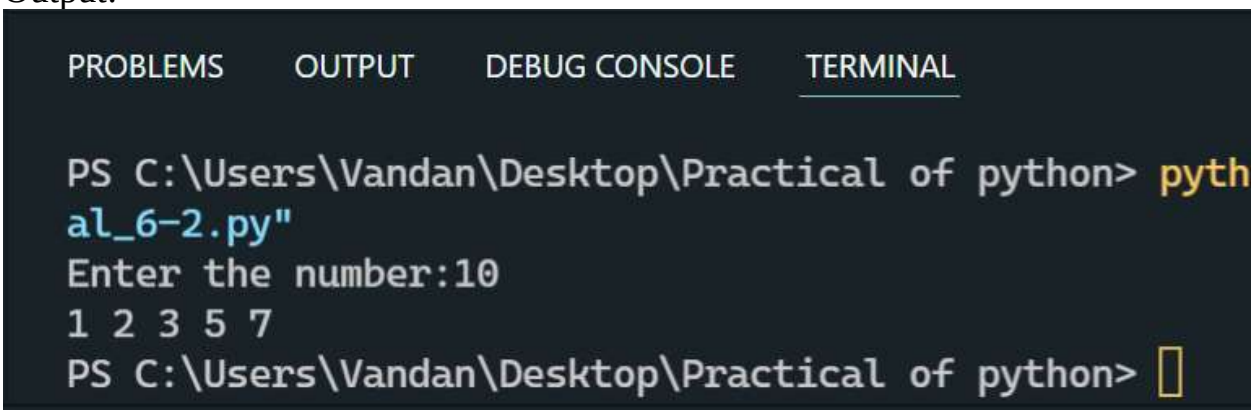
2. Write a program to display all the prime numbers between 1 to n using function.

Code:

```
n = int(input("Enter the number:"))
```

```
for i in range (1,n+1):
    temp =0
    for j in range(2,i-1):
        if(i%j==0):
            temp = 1
            break
    if(temp==0):
        print(i,end= " ")
```

Output:



3. Write a user defined function to sort a List.

Code:

```
l1=[5,3,1,6,2,4]
def sorting(l1):
    for i in range(0,len(l1)):
        for j in range(i+1,len(l1)):
            if(l1[i]>l1[j]):
                temp=l1[i]
                l1[i]=l1[j]
                l1[j]=temp
    return l1
ans=sorting(l1)
print(ans)
```

Output:

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL

eRunnerFile.py"
PS C:\Users\Vandan\Desktop\Practical of python> python
al_6-3.py"
[1, 2, 3, 4, 5, 6]
PS C:\Users\Vandan\Desktop\Practical of python>
```

4. Write a function to find the minimum and maximum value from argument list & return both minimum & maximum in tuple form.

Code:

```
test_list = [(2, 3), (4, 7), (8, 11), (3, 6)]


print ("The original list is : " + str(test_list))


res1 = min(test_list)[0], max(test_list)[0]
res2 = min(test_list)[1], max(test_list)[1]


print ("The min and max of index 1 : " + str(res1))
print ("The min and max of index 2 : " + str(res2))
```

Output:

```
The original list is : [(2, 3), (4, 7), (8, 11), (3, 6)]
The min and max of index 1 : (2, 8)
The min and max of index 2 : (3, 11)
PS C:\Users\Vandan\Desktop\Practical of python>
```

5. Write a function to add two lists of the same length term-by-term & return new list

   Eg.: A=listAdd([1,2,3],[1,2,3]

print (A) Will print [2,4,6].

Code:

```
l1 = [12,54,89,15,54,78,45,31,15,94,31,13]
l2 = [21,65,34,98,76,34,94,31,13,74,35,64]
l3 =[]
def listAdd(l1,l2,l3):
    for i in range(len(l1)):
        l=l1[i]+l2[i]
        l3.append(i)
listAdd(l1,l2,l3)
print("List 1:",l1)
print("List 2:",l2)
print("List 1+2 :",l3)
```

Output:

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL

eRunnerFile.py"
List 1: [12, 54, 89, 15, 54, 78, 45, 31, 15, 94, 31, 13]
List 2: [21, 65, 34, 98, 76, 34, 94, 31, 13, 74, 35, 64]
List 1+2 : [0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]
PS C:\Users\Vandan\Desktop\Practical of python>
```

6. WAP a function called powers(n) that prints out the first 5 powers of a given number.

   Eg. >>> powers(6)

   The first 5 powers of 6 are: 1 6 36 216 1296

   Code:

```
l1 =[]
a =int(input("ENter the number : "))
def powers(n):
    for i in range(5):
        a=n**i
```

```
        l1.append(a)
    print(l1)
powers(a)
```

Output:

```
ENter the number : 5
[1, 5, 25, 125, 625]
PS C:\Users\Vandan\Desktop\Practica
hon>
```