

Functions_loop

September 25, 2021

0.0.1 More on Functions

Providing Default values in Function

```
[12]: def addthree(a , b , c = 1):  
        return(a + b + c)  
  
addthree(b = 4, c = 5)
```

[12]: 11

```
[13]: def docomplex(a, b, Print = False):  
        c = (a*b + a**2 + b**2) / (a + b)  
        if Print:  
            print(c)  
        else:  
            return(c)
```

```
[18]: a = docomplex(4, 5, True)
```

6.777777777777778

```
[19]: a #no output
```

0.1 for Loop

```
[21]: ### For Loop  
for udit in (1, 4, 6, 7):  
    c = udit * 5 + 2  
    print(c)
```

7
22
32
37

```
[23]: for i in "Hardik Jaimini":  
      print(i)
```

H
a
r
d
i
k

J
a
i
m
i
n
i
1
4
6
7

break in for loop

```
[28]: Tu = (12, 45, 56, 12, 34)  
s = 0  
for j in Tu:  
    s = s + j  
    if s > 100:  
        break  
  
print(s)
```

113

```
[27]: s
```

```
[27]: 159
```

Problem 1: Write a programme that returns sum of the digits for a given number

```
[29]: a = input("Enter any four digit positive integer: ")  
Sum = 0  
  
if len(a) == 4:  
    for i in a:  
        Sum = Sum + int(i)
```

```

else:
    print("Number is not a four digit number")

if int(a) >= 1000 and int(a) <= 9999:
    for i in a:
        Sum = Sum + int(i)
else:
    print("Number is not a four digit number")

```

Enter any four digit positive integer: 3456

18

More general code for problem 1

```

[17]: num = input("Enter any number: ")
Sum = 0
for i in num:
    if i in "-+." :
        Sum = Sum + 0
    else:
        Sum = Sum + int(i)
print(Sum)

```

Enter any number: -12.0812002

16

Method 2

```

[20]: num = input("Enter any number: ")
Sum = 0
for i in num:
    if i not in "-+." :
        Sum = Sum + int(i)
print(Sum)

```

Enter any number: -12.34

10

Problem 2: Write a programme that removes white space from user input

```

[28]: anything = input("EnterAnything: ")
a = str()
for i in anything:
    if i != " ":
        a += i
print(a)

```

EnterAnything: Kanishk Kaur
KanishkKaur

Problem 2: Write a programme that removes all special characters from user input

```
[33]: a = input('Enter anything: ')
new = ''
for i in a:
    if i in "@#&_&()/+*.:;<!?,'[]%\\{}>=°`¢$¥€~`" or i in '":
        new = new + ' '
    else:
        new = new + i
print(new)
```

Enter anything: "Hello HItesh Chopra?#-Arnav Mahajan--::"
Hello HItesh ChopraArnav Mahajan