

Day - 6

User Defined Functions ¶

Creating & Calling a User Defined Function

```
In [1]: def my_function():  
        print("Hello from a function")  
  
        my_function()
```

Hello from a function

Making the result of the student

```
In [2]: def contact():  
        print("Contact details - ")  
        print("Delhi Public School")  
        print("Bangalore, Karnatka")  
        print("789852456")
```

```
In [6]: for i in range(4):  
        a = input("Enter the name of the student")  
        b = int(input("Enter the marks of Maths"))  
        c = int(input("Enter the marks of Science"))  
        d = int(input("Enter the marks of Social"))  
        contact()
```

```
Enter the name of the studentswati  
Enter the marks of Maths85  
Enter the marks of Science95  
Enter the marks of Social70  
Contact details -  
Delhi Public School  
Bangalore, Karnatka  
789852456  
Enter the name of the studentayush  
Enter the marks of Maths78  
Enter the marks of Science65  
Enter the marks of Social47  
Contact details -  
Delhi Public School  
Bangalore, Karnatka  
789852456  
Enter the name of the studentprashant  
Enter the marks of Maths98  
Enter the marks of Science95  
Enter the marks of Social85  
Contact details -  
Delhi Public School  
Bangalore, Karnatka  
789852456  
Enter the name of the studentnishant  
Enter the marks of Maths78  
Enter the marks of Science98  
Enter the marks of Social95  
Contact details -  
Delhi Public School  
Bangalore, Karnatka  
789852456
```

Arguments

Information can be passed into functions as arguments.

Arguments are specified after the function name, inside the parentheses. You can add as many arguments as you want, just separate them with a comma.

```
In [13]: def my_function(fname):  
         print(fname + " sharma")
```

```
In [14]: my_function("pooja")  
         my_function("priya")  
         my_function("payal")
```

```
pooja sharma  
priya sharma  
payal sharma
```

Number of Arguments

```
In [10]: def my_function(fname, lname):  
         print(fname + " " + lname)
```

```
In [11]: my_function("swati", "sharma")
```

```
swati sharma
```

```
In [12]: my_function("shreya", "verma")
```

```
shreya verma
```

Write a Python function to check whether a number falls within a given range.

```
In [16]: def test_range(n):  
         if n in range(3,9):  
             print(" %s is in the range"%str(n))  
         else :  
             print("The number is outside the given range.")
```

```
In [17]: test_range(5)
```

```
5 is in the range
```

Doc string

```
In [1]: def learn():  
        """ This function does nothing except printing"""  
        print("Hello i am a student")  
        print("python is so easy")
```

```
In [2]: learn()
```

```
Hello i am a student  
python is so easy
```

```
In [6]: # A simple Python function to check  
        # whether x is even or odd  
def evenOdd( x ):  
    if (x % 2 == 0):  
        print("even")  
    else:  
        print("odd")
```

```
In [8]: evenOdd(2)
```

```
even
```

Default arguments

A default argument is a parameter that assumes a default value if a value is not provided in the function call for that argument. The following example illustrates Default arguments.

```
In [12]: # Python program to demonstrate  
        # default arguments  
def myFun(x, y = 50):  
    print("x: ", x)  
    print("y: ", y)
```

```
In [13]: myFun(10)
```

```
x:  10  
y:  50
```

```
In [ ]: # write a pogram to calculate the electricity bill of 5 customers  
if 500 unit = pay Rs 5 for each unit  
if 700 unit = pay Rs 10 for each unit  
if 1000 unit = pay Rs 15 for each unit  
if more than 1000 Unit - pay Rs 20 for each unit
```

```
In [48]: def electricity_bill(n):  
        if n<=500:  
            print("Your bill is Rs", n*5)  
        elif n>500 and n<=700:  
            print("Your bill is Rs", n*10)  
        elif n>700 and n<=1000:  
            print("Your bill is Rs", n*15)  
        elif n> 1000:  
            print("Your bill is Rs", n*20)
```

```
In [49]: def details_bill():  
        print("The last date of paying the bill is 20 April")  
        print("After deadline you need o pay fine of Rs 1000")  
        print("Pay your bill soon")
```

```
In [52]: for i in range(3):  
        a = input("Enter the name of the customer")  
        n = int(input("enter the units of electricity consumed"))  
        electricity_bill(n)  
        print()  
        details_bill()
```

```
Enter the name of the customerayush  
enter the units of electricity consumed450  
Your bill is Rs 2250
```

```
The last date of paying the bill is 20 April  
After deadline you need o pay fine of Rs 1000  
Pay your bill soon  
Enter the name of the customerprashant  
enter the units of electricity consumed550  
Your bill is Rs 5500
```

```
The last date of paying the bill is 20 April  
After deadline you need o pay fine of Rs 1000  
Pay your bill soon  
Enter the name of the customerswati  
enter the units of electricity consumed750  
Your bill is Rs 11250
```

```
The last date of paying the bill is 20 April  
After deadline you need o pay fine of Rs 1000  
Pay your bill soon
```

```
In [ ]:
```