

# function in python

```
In [1]: def greet(): # function name is greet()
        print('Hello')
        print('Good Morning Team')
```

```
In [ ]: # no output becoz, we didn't call the function
```

```
In [5]: def greet(): # function name is greet()
        print('Hello')
        print('Good Morning Team')
        greet()      #function calling
```

Hello  
Good Morning Team

```
In [1]: def greet():
        print('hello')
        print('good morning team')
        greet()

        def greet():
            print('hello')
            print('good morning team')
            greet()
```

hello  
good morning team  
hello  
good morning team

```
In [3]: def greet(): # function name is greet()
        print('Hello')
        print('Good Morning Team')
        greet()

        print()

        def greet(): # function name is greet()
            print('Hello')
            print('Good Morning Team')
            greet()
```

Hello  
Good Morning Team

Hello  
Good Morning Team

```
In [ ]: #above code requires more memory, so memory gets wasted
```

```
In [4]: def greet(): # function name is greet()
        print('Hello')
        print('Good Morning Team')
        greet()
```

```
print('*****')
greet()
```

Hello  
Good Morning Team  
\*\*\*\*\*  
Hello  
Good Morning Team

```
In [2]: def greet(): # declare function without argument
        print('hello')
        print('good morning team')
        greet()
        print('*****')
        greet()
        print('*****')
        greet() # function calling with out argument
```

hello  
good morning team  
\*\*\*\*\*  
hello  
good morning team  
\*\*\*\*\*  
hello  
good morning team

```
In [3]: # function without argument

def greet():
    print('hello')
    print('good morning team')
    greet()
```

hello  
good morning team

```
In [4]: # function with argument

def add(x,y):
    c=x+y
    print(c)

add(2,7)
```

9

```
In [5]: # function with argument

def add(x,y):
    c=x+y
    return c

add(2,7)
```

Out[5]: 9

```
In [6]: # function with argument

def add(x,y):
    c=x+y
```

```
    return c
```

```
add(5)
```

```
-----  
TypeError                                Traceback (most recent call last)  
Cell In[6], line 7  
      4     c=x+y  
      5     return c  
----> 7 add(5)  
  
TypeError: add() missing 1 required positional argument: 'y'
```

```
In [7]: # function with argument
```

```
def add(x,y):  
    c=x+y  
    return c
```

```
add(5,6,7)
```

```
-----  
TypeError                                Traceback (most recent call last)  
Cell In[7], line 7  
      4     c=x+y  
      5     return c  
----> 7 add(5,6,7)  
  
TypeError: add() takes 2 positional arguments but 3 were given
```

```
In [8]: # function with argument
```

```
def add(x,y,z):  
    c=x+y  
    return c
```

```
add(5,6,7)
```

```
Out[8]: 11
```

```
In [9]: # function with argument
```

```
def add(x,y,z):  
    c=x+y+z+m  
    return c
```

```
add(5,6,7)
```

```

-----
NameError                                Traceback (most recent call last)
Cell In[9], line 7
      4     c=x+y+z+m
      5     return c
----> 7 add(5,6,7)

Cell In[9], line 4, in add(x, y, z)
      3 def add(x,y,z):
----> 4     c=x+y+z+m
      5     return c

NameError: name 'm' is not defined

```

In [10]: *# function with argument*

```

def add(x,y,z,n):
    c = x+y+z+m
    return c

add(2,4,5,8)

```

```

-----
NameError                                Traceback (most recent call last)
Cell In[10], line 7
      4     c = x+y+z+m
      5     return c
----> 7 add(2,4,5,8)

Cell In[10], line 4, in add(x, y, z, n)
      3 def add(x,y,z,n):
----> 4     c = x+y+z+m
      5     return c

NameError: name 'm' is not defined

```

In [11]: *# function with argument*

```

def add(x,y,z,n):
    c = x+y+z+n
    return c

add(1,2,3,4)

```

Out[11]: 10

```

In [12]: def greet():
          print('hello')
          print('good morning team')
          greet()

          def add(x,y):
              c = x+y
              return c

          add(2,3)

```

hello  
good morning team

Out[12]: 5

```
In [13]: def greet():
          print('hello')
          print('good morning team')

          def add(x,y):
              c = x+y
              return c

          def sub(x,y):
              d = x-y
              return d

          greet()
          print(add(2,3))
          print(sub(2,3))
```

```
hello
good morning team
5
-1
```

```
In [14]: def add_sub(x,y):
          c = x+y
          d = x-y
          return c, d

          result = add_sub(2,4)
          print(result)
          print(type(result))
```

```
(6, -2)
<class 'tuple'>
```

```
In [15]: def add_sub(x,y):
          c = x+y
          d = x-y
          return c, d

          result, result1 = add_sub(1,2)

          print(result)
          print(result1)
          print(type(result))
```

```
3
-1
<class 'int'>
```

```
In [16]: def add_sub_mul(x,y):
          c = x+y
          d = x-y
          e = x*y
          return c, d, e

          add, sub, mul = add_sub_mul(2,3)

          add
```

```
sub
mul
```

Out[16]: 6

## update

```
In [17]: def update():
          x = 2
          print(x)
          update()
```

2

```
In [18]: def update(): #update function take the value from the user
          x = 2
          print(x)

          update(2)
```

```
-----
TypeError                                Traceback (most recent call last)
Cell In[18], line 5
      2     x = 2
      3     print(x)
----> 5 update(2)

TypeError: update() takes 0 positional arguments but 1 was given
```

```
In [19]: def update(x): #update function take the value from the user
          x = 2
          return x

          update(10)
```

Out[19]: 2

```
In [20]: def update(x):
          x = 2
          return x

          a = 10
          update(a)
          print(a)
```

10

```
In [21]: def update(x):
          x = 2
          return x

          x = 10
          update(x)
          print(x)
```

10

```
In [31]: def update(x):
          x = 2
```

```
    return x
x=10
print(x)
```

10

```
In [32]: def update(x):
          x = 2
          return x
x=10
print(x)
update(x)
```

10

Out[32]: 2

```
In [33]: def update(x):
          x = 2
          return x
x=10
update(x)
print(x)
```

10

In [ ]: