

```
In [1]: def am9():  
        print('good morning guys')
```

```
In [2]: def am9():  
        print('good morning guys')  
        am9()
```

good morning guys

```
In [3]: def greet():  
        print('hello')  
        print('good morning')
```

```
In [4]: def greet():  
        print('hello')  
        print('good morning')  
        greet()
```

hello
good morning

```
In [5]: def greet():  
        print('hello')  
        print('good morning')  
        greet()  
  
        def greet():  
            print('hello')  
            print('good morning')  
            greet()  
  
        def greet():  
            print('hello')  
            print('good morning')  
            greet()
```

hello
good morning
hello
good morning
hello
good morning

```
In [6]: def greet():  
        print('hello good morning boss')  
  
        greet()
```

hello good morning boss

```
In [7]: def greet():  
  
        print('hello good morning boss')  
        greet()  
  
        greet()  
  
        greet()
```

```
greet()
```

```
hello good morning boss
hello good morning boss
hello good morning boss
hello good morning boss
```

```
In [8]: def add(x,y):# formal argument
        c = x+y
        print(c)

        add(5,6,7,8)# positional argument
```

```
-----
TypeError                                Traceback (most recent call last)
Cell In[8], line 5
      2     c = x+y
      3     print(c)
----> 5 add(5,6,7,8)

TypeError: add() takes 2 positional arguments but 4 were given
```

```
def add(x,y): c = x+y print(c) add(8,6)
```

```
In [11]: def add(x,y,z):
        c=x+y+z+m
        print(c)
        add(1,4,5,)
```

```
-----
NameError                                Traceback (most recent call last)
Cell In[11], line 4
      2     c=x+y+z+m
      3     print(c)
----> 4 add(1,4,5,)

Cell In[11], line 2, in add(x, y, z)
      1 def add(x,y,z):
----> 2     c=x+y+z+m
      3     print(c)

NameError: name 'm' is not defined
```

```
In [12]: def add(x,y,z,m):
        c=x+y+z+m
        print(c)
        add(1,4,5,9)
```

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19
```

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

```
hello
good morning
```

```
In [14]: def add(x,y):
        c = x+y
```

```
    print(c)
add(5,9)
```

14

```
In [15]: def greet():
          print('hello')
          print('good morning')
          greet()

          def add(x,y):
              c = x+y
              print(c)
          add(5,7)
```

```
hello
good morning
12
```

```
In [16]: def greet():
          print('hello')
          print('good morning')
          def add(x,y):
              c = x+y
              print(c)

          add(5,6)
          greet()
```

```
11
hello
good morning
```

```
In [17]: def greet():
          print('hello')
          print('good noon')

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

          def sub(x,y):
              d = x-y
              print(d)
          greet()
          add(5,4)
          sub(10,2)
```

```
hello
good noon
9
8
```

```
In [18]: def add_sub(x,y):
          c = x+y
          d = x-y
          print(c)
          print(d)

          add_sub(10,5)
```

15
5

```
In [19]: def add_sub(x,y):
          c = x+y
          d = x-y
          return c,d

          add_sub(10,5)
```

Out[19]: (15, 5)

```
In [20]: def add_sub(x,y):
          c= x+y
          d= x-y
          return c, d

          result = add_sub(5,4)

          print(result)
```

(9, 1)

```
In [22]: def add_sub(x,y):
          c=x+y
          d= x-y
          return c, d
          result1,result2 = add_sub(5,4)
          print(result1, result2)
```

9 1

```
In [23]: def add(x,y):
          c = x+y
          print(c)
          add(5,6)
```

11

FORMAL ARGUMENT & ACTUAL ARGUMENT

```
In [24]: def person(name,age):
          print(name)
          print(age)

          person('nit',23,34)
```

```
-----
TypeError                                Traceback (most recent call last)
Cell In[24], line 5
      2     print(name)
      3     print(age)
----> 5 person('nit',23,34)

TypeError: person() takes 2 positional arguments but 3 were given
```

```
In [25]: def person(name,age):  
        print(name)  
        print(age)  
  
        person('nit',23)
```

nit
23

```
In [26]: def person(name,age):  
        print(name)  
        print(age)  
  
        person(23,'nit')
```

23
nit

```
In [35]: def person(name,age):  
        print(name)  
        print(age+1)  
  
        person(23,'nit')
```

23

```
-----  
TypeError                                Traceback (most recent call last)  
Cell In[35], line 5  
      2     print(name)  
      3     print(age+1)  
----> 5 person(23,'nit')
```

```
Cell In[35], line 3, in person(name, age)  
      1 def person(name,age):  
      2     print(name)  
----> 3     print(age+1)
```

TypeError: can only concatenate str (not "int") to str

Key Argument

```
In [28]: def person (name,age):  
        print(name)  
        print(age+1)  
  
        person(age=23, name='nit')
```

nit
24

```
In [ ]: def person(name,age):  
        print(name)  
        print(age+1)  
  
        person(age1=23, name='nit')
```

```
In [30]: def person(name,age1):  
        print(name)  
        print(age1+1)  
  
        person(age1=23, name='nit')
```

```
nit  
24
```

```
In [32]: def person(name,age,city):  
        print(name)  
        print(age+1)  
        print(city)  
  
        person(age=22, name='NIT', city = 'bid')
```

```
NIT  
23  
bid
```

```
In [33]: def person(name, age=18):  
        print(name)  
        print(age)  
  
        person('nit', 24)
```

```
nit  
24
```

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In [ ]:
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In [ ]:
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In [ ]:
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