

WHY FUNCTIONS?

Repetitions (Birthday song)

```
print("Happy birthday to you!")
print("Happy birthday to you!")
print("Happy birthday to Dear name")
print("Happy birthday to you!")
print("Happy birthday to you!")
print("Happy birthday to you!")
print("Happy birthday to Dear name")
print("Happy birthday to you!")
print("Happy birthday to you!")
```

function with argument (custom birthday wishes)

```
def wishBirthday(name): #passing
argument/parameter
    """This function is used to
wish birthday to someone"""
    happy()
    happy()
    print("Happy birthday to you
dear", name, '!')
    happy()
    wishBirthday("Sourabh")
    wishBirthday("Jack")
```

Function required argument

```
1 def shoume(str): #required argument
2     print(str)
3     return
4 shoume("Sourabh")
5 shoume()
```

Sourabh

TypeError: shoume() missing 1 required positional argument: 'str'

default arguments in PYTHON

```
1 def shoume(name,contact,age="18"): #default argument
2     print(name,contact,age)
3 shoume("Ram","343434343")
4 shoume("Shyam","343434333","33")
5 shoume("Will","343434333",age="33")
```

Ram 343434343 18
Shyam 343434333 33
Will 343434333 33

map function in PYTHON

```
2 def add(x,y): #mapping
3     return x+y
4 lst=[10,20,30,40,50]
5 lst2=[10,20,30,40,50]
6 print(lst)
7 print(*map(add,lst,lst2))
```

10, 20, 30, 40, 50
0 40 60 80 100

Lets define function

```
def happy():
print("Happy birthday to you!")
:definition of function
happy() #calling of function
happy()
print("Happy birthday to you dear name")
happy()
happy()
happy()
happy()
happy()
happy()
happy()
happy()
```

help/ documentation of function

using . operator wishBirthday.__doc__

using help function help(wishBirthday)

help(len)

keyword arguments in PYTHON

```
1 def shoume(str,str2):
2     print(str)
3     print(str2)
4     return
5 #shoume("Sourabh")
6 shoume(str="Ram",str2="Shyam") #keyword argument
```

Ram
Shyam

LAMBDA Function (no name)

```
1 #lambda function
2
3 def sum(a,b):
4     return a+b
5 sum(10,20)
30
1 t=lambda a,b:a+b
2 print(t(10,30))
40
```

Multiple functions

```
def wishSourabh():
happy()
happy()
    print("Happy birthday to
dear Sourabh")
    happy()
def wishJack():
happy()
happy()
print("Happy birthday to dear
Jack")
happy()
wishSourabh()
wishJack()
```

Function can return multiple parameters in PYTHON

```
1 def getSumAndDiff(a,b): #multiple return values
2     return a+b,a-b
3 print(getSumAndDiff(20,10))
```

(30, 10)

Variable Arguments in PYTHON

```
1 def sum(*nos): #variable length argument
2     sum=0
3     for n in nos:
4         sum+=n
5     return sum
6 sum(10,20,30,40)
7 sum(10,20,30,40,50,60,70,34,45,55,6)
```

454

Global in functions

```
1 s1=0 #global variable
2 def sum(a,b,c):
3     s1=a+b+c
4     return s1
5 print(sum(10,20,30)) #60
6 print(s1) #0
7 #output will remain 0 inner s1 has function level scope
```

1 s1=0 #global variable
2 def sum(a,b,c):
3 global s1
4 s1=a+b+c
5 return s1
6 print(sum(10,20,30)) #60
7 print(s1)
60
60



By sahusourabh

Published 20th July, 2022.

Last updated 20th July, 2022.

Page 1 of 1.

Sponsored by [ApolloPad.com](https://apollopad.com)

Everyone has a novel in them. Finish Yours!

<https://apollopad.com>