Cheatography

FUNCTIONS IN PYTHON Cheat Sheet

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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 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 someon e"""
happy()
happy()
print( " Happy birthday to you dear",n ame ,'!')
happy()
wishBi rth day ("So ura bh")
wishBi rth day ("Ja ck")
```

Function required argument

```
def showme(str):  #required argument
  print(str)
  return
showme("Sourabh")
showme()
```

```
Sourabh
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
```

default arguments in PYTHON

```
def showme(name,contact,age="18"): #default argument
  print(name,contact,age)
showme("Ram",*343434343")
showme("Shyam","343434333","33")
showme("Will","343434333",age="33")
```

```
Ram 343434343 18
Shyam 343434333 33
Will 343434333 33
```

map function in PYTHON

```
def add(x,y):  #mapping
  return x+y
lst=[10,20,30,40,50]
lst2=[10,20,30,40,50]
print(lst)
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()
print("Happy birthday to you dear name")
happy()
happy()

help/ documentation of function

using . operator	wishBirthday.__doc__
using help function	help(wishBirthday)
	help(len)

keyword arguments in PYTHON

```
def showme(str,str2):
  print(str)
  print(str2)
  return
#showme("Sourabh")
showme(str="Ram",str2="Shyam") #keyword argument
```

```
Ram
Shyam
```

LAMBDA Function (no name)

```
#lamda function

def sum(a,b):
  return a+b
sum(10,20)
```

```
30
```

```
t=lambda a,b:a+b
print(t(10,30))
```

```
40
```

Multiple functions

```
def wishSourabh():
happy()
happy()
      print( " Happy birthday to dear Sourab h")
      happy()
def wishJa ck():
happy()
happy()
print( " Happy birthday to dear Jack")
happy()
wishSo urabh()
wishJack()
```

Function can return multiple parameters in PYTHON

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

```
(30, 10)
```

Variable Arguments in PYTHON

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

```
454
```

Global in functions

```
s1=0 #global variable
def sum(a,b,c):
  s1=a+b+c
  return s1
print(sum(10,20,30)) #60
print(s1) #0
#output wil remain 0 inner s1 has function level scope
```

```
s1=0 #global variable
def sum(a,b,c):
  global s1
  s1=a+b+c
  return s1
print(sum(10,20,30)) #60
print(s1)
```

```
60
60
```


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