```
1/12/2021
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4.Variable Length Arguments(*args):-
--------------------------

Sometimes we can pass variable number of arguments to our function,such
type of arguments are called variable length arguments.

We can declare a variable length argument with * symbol

ex:-

def f1(*n):


we can call this function by passing any number of arguments includining
Zero number,Internally all these values are represented in the form of
tuple.

ex:-

def sum(*num):
    total = 0
    for i in num:
        total = total+i
    print("The sum=",total)

sum()
sum(89,78)
sum(78,567,45,78,90,89,67,459,23,32,12,56,78,800,988,766,544,433,322,211)

OP:-

The sum= 0
The sum= 167
The sum= 5738

Note:- We can mix variable length arguments with positional arguments.

def f1(n1,*num):
    print(n1)
    for i in num:
        print(i)

f1(10)
f1(10,20,30)

op:-
10
10
20
30
```

ii:- Key word variable length of arguments(**kwargs):-
----

we can decalre key word variable length arguments using **.

def f1(**n):

We can call this function by passing any number of keyword
arguments.Internally these keyword arguments will be stored inside a
dictionary.

```
def display(**kwargs):
    for k,v in kwargs.items():
        print(k,":",v)

display(name="krishna",roll_no=67,address="BBSR")
```

```
name : krishna
roll_no : 67
address : BBSR
```


Types of variables:-

Python supports 2 types of variables.

1. Global Variables.
2. Local Variables.

1. Global Variables.

The variables which are declared autside of function are called global
variables.These variables can be accessed in all functions of that module.

```
a = 10
print(a)
def f1():
    print(a)

def f2():
    print(a)

f1()
f2()
```

Op:-

```
10
10
10
```

```
2.  Local Variables:-
    -----------------

The variables which are declared inside a function are called local
variables.Local variables are available only for the function in which we
decalred it,that is from outside of function we connot access.

def f1():
    a=10
    print(a)
def f2():
    print(a)

f1()
f2()

op:-

10
Traceback (most recent call last):
  File
"C:\Users\chand\PycharmProjects\testing_17_18_19_python\Functions\user_def
ine_functions.py", line 227, in <module>
    f2()
  File
"C:\Users\chand\PycharmProjects\testing_17_18_19_python\Functions\user_def
ine_functions.py", line 224, in f2
    print(a)
NameError: name 'a' is not defined

global keyword:-
--------------

a=10
print(a)
def f1():
    global a
    a=888
    print(a)
def f2():
    print(a)
f1()
f2()
```