Function

February 13, 2023

```
[2]: print("kishor kurhe")
```

```
kishor kurhe
```

```
[3]: l=[1,2,3,4,5,6,7]
```

```
[4]: l
```

```
[4]: [1, 2, 3, 4, 5, 6, 7]
```

```
[5]: len(l)
```

```
[5]: 7
```

```
[6]: def test():
         pass
```

```
[7]: def test1():
         print("This is my function")
```

```
[8]: test1
```

```
[8]: <function __main__.test1()>
```

```
[9]: test1()
```

```
This is my function
```

```
[10]: test1()*"kishor"
```

```
This is my function
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[10], line 1
----> 1 test1()*"kishor"
```

```
TypeError: can't multiply sequence by non-int of type 'NoneType'
```

```
[11]: def test2():
          return "this is my fun with return "
```

```
[12]: test2()
```

```
[12]: 'this is my fun with return '
```

```
[13]: def test3():
          return 1,2,3,"pw"
```

```
[14]: test3()
```

```
[14]: (1, 2, 3, 'pw')
```

```
[20]: a=1,2,3,4,5,6
```

```
[21]: a
```

```
[21]: (1, 2, 3, 4, 5, 6)
```

```
[23]: a,b,c,d,e=1,2,3,4,5
```

```
[24]: a
```

```
[24]: 1
```

```
[25]: b
```

```
[25]: 2
```

```
[26]: c
```

```
[26]: 3
```

```
[27]: d,e
```

```
[27]: (4, 5)
```

```
[28]: test3()
```

```
[28]: (1, 2, 3, 'pw')
```

```
[29]: test3()[2]
```

```
[29]: 3
```

```
[30]: a,b,c,d=test3()
```

```
[31]: test3()
```

```
[31]: (1, 2, 3, 'pw')
```

```
[35]: def test4():
          a=3*4+5
          return a
```

```
[36]: test4()
```

```
[36]: 17
```

```
[37]: type(test4())
```

```
[37]: int
```

```
[44]: def test5(a,b):
          c=a+b
          return c
```

```
[45]: test5(1,3)
```

```
[45]: 4
```

```
[46]: test5("kishor","kurhe")
```

```
[46]: 'kishorkurhe'
```

```
[47]: test5([1,2,3],[4,5,6])
```

```
[47]: [1, 2, 3, 4, 5, 6]
```

```
 [1]: test5(b="kishor",a="kurhe")
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[1], line 1
----> 1 test5(b="kishor",a="kurhe")

NameError: name 'test5' is not defined
```

```
[16]: l=[1,2,3,4,5,"sudh","pwskills",[1,2,3,34,45]]
```

[17]:
```
# create a function which will take list as a input and give me final list with␣
 ↪all the numeric value
```

[24]:
```
def test6(a):
    n=[]
    for i in a:
         if type(i)== int or type(i)== float:
                n.append(i)
    return n
```

[25]:
```
test6(l)
```

[25]:
```
[1, 2, 3, 4, 5]
```

[21]:
```
test6(l)
```

[21]:
```
[1]
```

[32]:
```
def test6(a):
    n=[]
    for i in a:
        if type(i)!=str:
            n.append(i)
    return i
```

[33]:
```
test6(l)
```

[33]:
```
[1, 2, 3, 34, 45]
```

[40]:
```
def test7(a):
    n=[]
    for i in a:
        if type(i)==list :
            for j in i :
                if type(j)==int or type(j)==float :
                    n.append(j)
    else :
        if type(i)==int or type(j)==float :
            n.append(i)
    return n
```

[41]:
```
test7(l)
```

[41]:
```
[1, 2, 3, 34, 45]
```

[42]:

```
def test8(a,b,c,d,e):
    pass
```

[44]:

```
test(1,2,3,4,5,6,7)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[44], line 1
----> 1 test(1,2,3,4,5,6,7)

TypeError: test() takes 0 positional arguments but 7 were given
```

[46]:

```
def test(*args):
    return args
```

[47]:

```
test(1,2)
```

[47]:

```
(1, 2)
```

[48]:

```
test("kk",[1,2,3],(1,2,3,4))
```

[48]:

```
('kk', [1, 2, 3], (1, 2, 3, 4))
```

[51]:

```
def test2(*kk):
    pass
```

[56]:

```
def test4(*args,a):
    return args,a
```

[57]:

```
test4(4,a=5)
```

[57]:

```
((4,), 5)
```

[58]:

```
def test4(*args):
    l=[]
    for i in args:
        if type(i)==list :
            l.append(i)
    return l
```

[59]:

```
test4(1,2,3,4,[5,6,7,8],"kishor",[9,6])
```

[59]:

```
[[5, 6, 7, 8], [9, 6]]
```

[60]:

```
def test5(**kwargs):
    return kwargs
```

[62]:
```
test5()
```

[62]:
```
{}
```

[63]:
```
type(test5())
```

[63]:
```
dict
```

[64]:
```
test5(a=5,b=6,c=[1,2,3],d=["kk","kurhe"])
```

[64]:
```
{'a': 5, 'b': 6, 'c': [1, 2, 3], 'd': ['kk', 'kurhe']}
```

[70]:
```
def test7(*args,**kwargs):
    return args , Kwargs
```

[ ]:
```

```

[1]:
```
range(1,10)
```

[1]:
```
range(1, 10)
```

[2]:
```
for i in range(1,10):
    print(i)
```

```
1
2
3
4
5
6
7
8
9
```

[4]:
```
l=[1,2,3,4,5,6,7,8,"kk","pwskills"]
```

[6]:
```
def test1(a):
    n=[]
    for i in a:
        if type(i)== int:
            n.append(i)
    return n
```

[7]:
```
test1
```

[7]:
```
<function __main__.test1(a)>
```

[9]:
```
test1(l)
```

[9]:
```
[1, 2, 3, 4, 5, 6, 7, 8]
```

[ ]:
```
# Fibonacci series 0 ,1,2,3,5,8,13,21
```

[6]:
```
def test_fib(n):
    a,b=0,1
    for i in range(n):
        yield a
        a,b= b, a+b
```

[7]:
```
test_fib(10)
```

[7]:
```
<generator object test_fib at 0x7f274043eb20>
```

[8]:
```
for i in test_fib(10):
    print(i)
```

```
0
1
1
2
3
5
8
13
21
34
```

[12]:
```
num =int(input("Enter a number"))
n1, n2 = 0, 1
print("Fibonacci Series:", n1, n2, end=" ")
for i in range(2, num):
    n3 = n1 + n2
    n1 = n2
    n2 = n3
    print(n3, end=" ")

print()
```

```
Enter a number 20
```

```
Fibonacci Series: 0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584
4181
```

[13]:
```
def test_fib(n):
    a,b=0,1
    for i in range(n):
        yield a
        a,b=b,a+b
```

[14]:
```
test_fib(10)
```

[14]:
```
<generator object test_fib at 0x7f274043fe60>
```

[15]:
```
for i in test_fib(10):
    print(i)
```

```
0
1
1
2
3
5
8
13
21
34
```

[ ]:
```

```