6q0gujcrv

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[13]:
```
def decor_div(fun):
    def inner(a,b):
        if b>0:
            return fun(a,b)
        else:
            print("division is not possible")
    return inner

@decor_div
def div(a,b):
    return a/b
```

[16]:
```
div(10,6)
```

[16]:
```
1.6666666666666667
```

[ ]:
```
local variable
global variable



local -- within the function only
global -- whole program
```

[27]:
```
x = 45
def test():
    x = 100
    print(x)
    print(globals()['x'])
```

[28]:
```
test()
```

```
100
45
```

[ ]:
```
global
```

```
1.to modify global varibale using function
2.to make local varibale to global
```

[42]:
```
x = 750
def test():
    global x, y,z
    x = 10
    y = 60
    z = 90
```

[43]:
```
test()
```

[44]:
```
x
```

[44]: 10

[34]:
```
y
```

[34]: 60

[35]:
```
z
```

[35]: 90

[ ]:
```
types of function


1.block of code which perform given task
```

[ ]:
```
code reusability
code management
easy to debug
```

[45]:
```
def test():
    print("hi")
```

[46]:
```
test()
```

```
hi
```

[ ]:
```
positional    --upto 8
default
variable length -- math
keyword
variable length key
```

[48]:
```
def emp(id,name,city,aadhar=0,PAN=0):
    print(id,name,city,aadhar,PAN)
```

[51]:
```
emp(101,'sdf','pune',None,0)
```

```
101 sdf pune None 0
```

[53]:
```
emp(PAN=15156,id=101,name='adsfsd',city='pune')
```

```
101 adsfsd pune 0 15156
```

[54]:
```
def test(*t):
    print(t)
```

[55]:
```
test(45,96,151,261,126)
```

```
(45, 96, 151, 261, 126)
```

[56]:
```
def test(**t):
    print(t)
```

[58]:
```
test(name='test',city='pune')
```

```
{'name': 'test', 'city': 'pune'}
```

[ ]:
```
*arg vs **kwargs
```

[ ]:
```
simple if --- only one condition
if else -- two condition which is opposite
if else ladder -- two or more condition
nested if else -- dependent condition

if condition:
    if condition:
        if condition:

loop statement
for loop  -- group of elements
while loop -- condition based
```

[ ]:
```
range()

to generate seq of number

range(start,stop,step)
step == 1
start = 0
```

[59]:
```
emp = ['test','tetfvsfd','asfsdf','asfsdf']
```

[61]:
```
for i in emp:
    print(len(i))
```

```
4
8
6
6
```

[74]:
```
i = len(emp)
```

[75]:
```
i
```

[75]: 4

[76]:
```
while i>0:
    print(len(emp[i-1]))
    i-=1
```

```
6
6
8
4
```

[ ]:
```
break  -- execute --> terminate loop
continue --   skip iteration
```

[78]:
```
for i in range(10):
    if i==7:
        continue
    else:
        print(i)
```

```
0
1
2
3
4
5
6
8
9
```

[ ]:
```
break  --> id -- dummy data loop terminate
```

```
email --> continue
```

[ ]:

[ ]:

[81]:
```
for i in range(1,1001,100):
    print(i)
```

```
1
101
201
301
401
501
601
701
801
901
```

[ ]:
```
DS:
---
```

[ ]:
```
type casting
```

[82]:
```
a = 45.5
```

[83]:
```
int(a)
```

[83]: 45

[84]:
```
p = '45'
```

[85]:
```
type(p)
```

[85]: str

[87]:
```
float(int(p))
```

[87]: 45.0

[88]:
```
p = [45,86,35,765]
```

[89]:
```
tuple(p)
```

[89]: (45, 86, 35, 765)

[90]:
```
set(p)
```

[90]:
```
{35, 45, 86, 765}
```

[103]:
```
a = ['name','city','sal','safsdf','asfasfs']

b = ['keshav','pune',75000,16416416]
```

[104]:
```
{'name':'keshav','city':'pune','sal':75000}
```

[104]:
```
{'name': 'keshav', 'city': 'pune', 'sal': 75000}
```

[105]:
```
dict(zip(a,b))
```

[105]:
```
{'name': 'keshav', 'city': 'pune', 'sal': 75000, 'safsdf': 16416416}
```

[ ]:
```
unzip  -->
```

[ ]:
```

```

[ ]:
```

```

[ ]:
```

```

[ ]:
```

```