

# Variables

Tuesday, July 8, 2025 7:30 PM

The variables are classified into 2 types

1. Global Variable
2. Local Variable

Eg:

a=10

b=20

def sam():

print(a,b)

print(a+b)

print(a,b)

sam()

print(b+10)

b=2000

print(a,b)

O/p: -

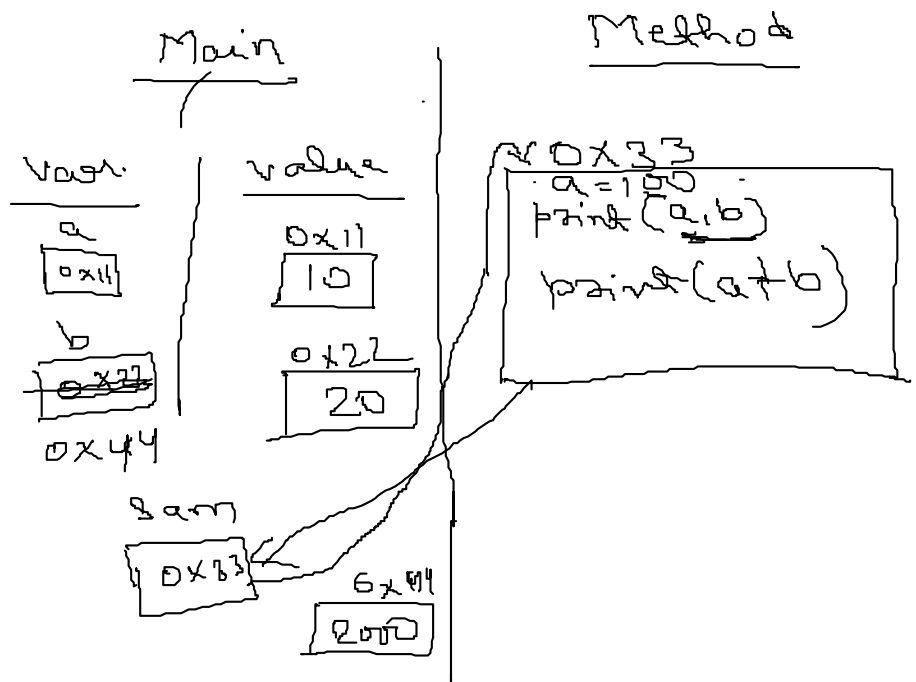
10 20

10 20

30

30

10 2000



1. **Global Variable:** The variable which is created in the main space is called as global variable.

- o It can be accessed and modified in the main area.
- o It can be accessed in the method area but can't be modified directly in method area.
- o If we want to modify the global variable in the method area, we have to use the 'global' keyword.
- o Global keyword should be the first instruction in the function.

Eg:

a=10

b=20

def sam():

global a,b

a=100

b=500

print(a,b)

print(a+b)

print(a,b)

sam()

print(b+10)

b=2000

print(a,b)

2. **Local Variable:**

Eg:

a,b=10,20

def outer():

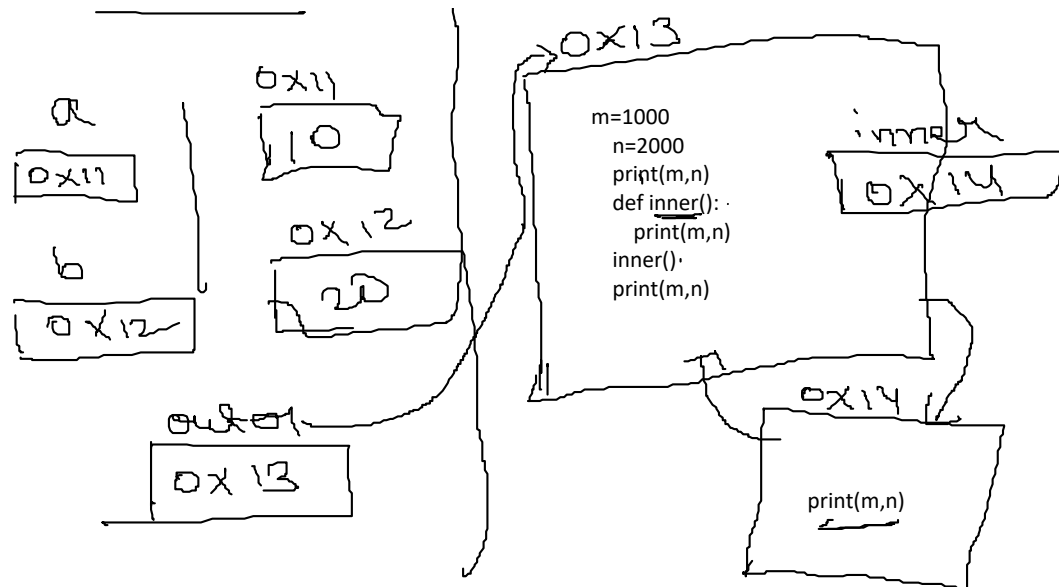
m=1000



```

a,b=10,20
def outer():
    m=1000
    n=2000
    print(m,n)
    def inner():
        print(m,n)
        inner()
        print(m,n)
    print(a,b)
    outer()

```



O/P:-

10 20

1000 2000

1000 2000

1000 2000

It is a variable that is created inside the method area.

- We can access and modify them in that function only.
- We can't access and we can't modify them in the main area.
- We can access it in nested function but we can't modify it directly.
- If we want to modify it in nested fn. We have to use the 'non local' keyword.

Eg:

```

a,b=10,20
def outer():
    m=1000
    n=2000
    print(m,n)
    def inner():
        nonlocal m
        m=1500
        print(m,n)
    inner()
    print(m,n)
print(a,b)
#print(m,n)
outer()

```

- ✧ All the global variable can be accessed as local but the local can't be accessed as global.
- ✧ Local Variable is always given the more priority than the Global variable.
- ✧ Only way to access the local variable in main space is with return function.

## Difference btw. Local and Global Variable

Global Variable:

- Created in main area
- Scope is both outside and inside the function
- Global keyword is used to modify it inside the function

Local Variable:

- i. Created inside the method area
- ii. Scope is inside the function only.
- iii. Nonlocal is used to modify it inside the nested function.

\* Formal Arguments: The arguments that are passed during the function declaration

- It is used to receive the data

\* Actual Argument: This argument is passed at the time of function call

- It is used to send the data

