In [3]:

```
def addition(a,b):
    r = a+b
    return r

#addition(5,8)
print(addition(5,8))
```

```
13
```

Types of arguments

- In python we have two types of arguments. Those are

    1. Actual Arguments
    2. Formal Arguments
- Actual arguments

    1. Positional arguments
    2. Keyword arguments
    3. Default arguments
    4. Variable length arguments

In [4]:

```
# Basic program

def add(a,b): # Formal arguments
    c = a+b
    print(c)

add(5,3) # Actual arguments
```

```
8
```

In [6]:

```
# 1. Positional arguments

def person(name, age): #name=raju, age=20
    print("Person name: ",name)
    print("Person age: ",age)

person('raju', 20)
```

```
Person name:  raju
Person age:  20
```

In [7]:

```
def person(name, age): #name=20, age=raju
    print("Person name: ",name)
    print("Person age: ",age)

person(20, 'raju')
```

```
Person name:  20
Person age:  raju
```

In [10]:

```
def person(name, age): #name=20, age=raju
    print("Person name: ",name)
    print("Person age: ",age-1)

person(20, 'raju')
```

```
Person name:  20

---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-10-124b6c609edc> in <module>
      3     print("Person age: ",age-1)
      4
----> 5 person(20, 'raju')

<ipython-input-10-124b6c609edc> in person(name, age)
      1 def person(name, age): #name=20, age=raju
      2     print("Person name: ",name)
----> 3     print("Person age: ",age-1)
      4
      5 person(20, 'raju')

TypeError: unsupported operand type(s) for -: 'str' and 'int'
```

In [13]:

```
# 2. Keyword argument

def person(name, age): #name=raju, age=20
    print("Person name: ",name)
    print("Person age: ",age-1)

person(age=20, name = 'raju')
```

```
Person name:  raju
Person age:  19
```

In [17]:

```
def person(name, age, address):
    print("Person's Name: ",name)
    print("Person's age: ",age)
    print("Person's address: ",address)

name = input("Enter name: ")
age = int(input("Enter age: "))
address = input("Enter address: ")
person(age=age, address=address, name=name)
```

```
Enter name: raju
Enter age: 23
Enter address: hyd
Person's Name:  raju
Person's age:  23
Person's address:  hyd
```

In [15]:

```
s = 'manjunath'
print(type(s))
s2 = "Akhil"
print(type(s2))
```

```
<class 'str'>
<class 'str'>
```

In [18]:

```
# 3. Default arguments

def person(name, age=21):
    print("Person name: ",name)
    print("Person age: ",age)

person("Raju")
```

```
Person name:  Raju
Person age:  21
```

In [19]:

```
def person(name, age=21): # name = Raju, age=22
    print("Person name: ",name)
    print("Person age: ",age)

person("Raju", 22)
```

```
Person name:  Raju
Person age:  22
```

In [20]:

```
# 4. Variable length argument

def Sum(a,b):
    print("A =",a)
    print("B =",b)

Sum(1,2,3,4,5,6)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-20-9fa786bb5435> in <module>
      5     print("B =",b)
      6
----> 7 Sum(1,2,3,4,5,6)

TypeError: Sum() takes 2 positional arguments but 6 were given
```

In [22]:

```
def Sum(a,*b):
    print("A =",a)
    print("B =",b)

Sum(1,2,3,4,5,6)
```

```
A = 1
B = (2, 3, 4, 5, 6)
```

In [23]:

```
def Sum(a,*b):
    print("A =",a)
    s = 0
    for i in b: #i=2, i=3, i=4, i=5, i=6
        s += i # s=s+i
    print("Summation =",s)

Sum(1,2,3,4,5,6)
```

```
A = 1
Summation = 20
```

In [25]:

```
tup = (1,2,3,4,5,6)
print("A=",tup[0:4])
print("B = ",tup[4:7])
```

```
A= (1, 2, 3, 4)
B =  (5, 6)
```

In [29]:

```
n = int(input("Enter a number: ")) #n=3
fact = 0
for i in range(1,n+1): # i=1, i=2, i=3
    if(n%i == 0):
        fact += 1 # fact = fact + 1

if(fact == 2):
    print(n,"is prime number")
else:
    print(n,"is not a prime number")
```

```
Enter a number: 5
5 is prime number
```

In [30]:

```
def isPrimeOrNot(n):
    fact = 0
    for i in range(1,n+1): # i=1, i=2, i=3
        if(n%i == 0):
            fact += 1 # fact = fact + 1

    if(fact == 2):
        print(n,"is prime number")
    else:
        print(n,"is not a prime number")

n = int(input("Enter a number: "))
isPrimeOrNot(n)
```

```
Enter a number: 6
6 is not a prime number
```

In [28]:

```
n = 4
for i in range(n):
    print(i, end=" ")
```

```
0 1 2 3
```

In [ ]:

```

```