In [4]:
```
#3.Write a Python program to sum all the items in a list.
def sum_list(items):
    sum_numbers = 0
    for x in items:
        sum_numbers += x
    return sum_numbers
print(sum_list([6,2,4,14,-10]))
```

```
16
```

In [5]:
```
#4. Write a Python program to create a list of empty dictionaries
n = 5
l = [{} for _ in range(n)]
print(l)
```

```
[{}, {}, {}, {}, {}]
```

In [7]:
```
#5. Write a Python program to access dictionary keys element by index.
num = {'hyd': 80, 'vizag': 90, 'bengaluru': 86}
print(list(num)[0])
```

```
hyd
```

In [11]:
```
#6. Write a Python program to iterate over dictionaries using for loops
d = {'mango': 1, 'grapes': 2, 'banana': 3}
for fruit_key, value in d.items():
     print('number of ',fruit_key, ' are ', d[fruit_key])
```

```
number of  mango  are  1
number of  grapes  are  2
number of  banana  are  3
```

In [13]:
```
#7. Write a Python program to sum all the items in a dictionary.
def returnSum(myDict):
    sum = 0
    for i in myDict:
        sum = sum + myDict[i]
    return sum
dict = {'a': 12, 'b':20, 'c':10}
print("Sum :", returnSum(dict))
```

```
Sum : 42
```

In [14]:
```
#8. Write a Python script to concatenate following dictionaries to create a new one. Sample
 Dictionary :
#a. dic1={1:10, 2:20}
#b. dic2={3:30, 4:40}
#c. dic3={5:50,6:60}
dic1={4:20, 4:70}
dic2={2:10, 6:60}
dic3={7:40,7:80}
dic4 = {}
for d in (dic1, dic2, dic3): dic4.update(d)
print(dic4)
```

```
{4: 70, 2: 10, 6: 60, 7: 80}
```

In [15]:
```
#9. Expected Result : {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}
dic1={1:10, 2:20}
dic2={3:30, 4:40}
dic3={5:50,6:60}
dic4 = {}
for d in (dic1, dic2, dic3): dic4.update(d)
print(dic4)
```

```
{1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}
```

In [16]:
```
#10.Write a Python program to create a tuple
t = ()
print (t)
tup = 'c', 'c++','python'
print(tup)
```

```
()
('c', 'c++', 'python')
```

In [18]:
```
#11.Write a Python program to create a tuple with different data types
tuple1 = ("python", True, 1.2,2)
print(tuple1)
```

```
('python', True, 1.2, 2)
```

In [2]:
```
#12.Write a Python program to convert a tuple to a string
def convertTuple(tup):
    str =  ''.join(tup)
    return str
tuple1 = ('t','u','p','l','e')
str = convertTuple(tuple1)
print(str)
```

```
tuple
```

In [7]:
```
#13.Write a Python program to slice a tuple
import string
test_str = "1, -5, 4, 6, 7"
print("The original string : " ,str(test_str))
res = tuple(map(int, test_str.split(', ')))
print("Tuple after getting conversion from String : " + str(res))
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-7-b3b389e8810f> in <module>
      2 import string
      3 test_str = "1, -5, 4, 6, 7"
----> 4 print("The original string : " ,str(test_str))
      5 res = tuple(map(int, test_str.split(', ')))
      6 print("Tuple after getting conversion from String : " + str(res))

TypeError: 'str' object is not callable
```

In [9]:
```
#14.Write a Python program to find the length of a tuple.
tuple1 = tuple("tuples")
print(tuple1)
print(len(tuple1))
```

```
('t', 'u', 'p', 'l', 'e', 's')
6
```

In [11]:
```
#15.Write a Python program to convert a tuple to a dictionary.
tuplex = ((4, "w"),(2, "r"))
print(dict((y, x) for x, y in tuplex))
```

```
{'w': 4, 'r': 2}
```

In [13]:
```
#16.Write a Python program to reverse a tuple
def Reverse(tuples):
    new_tup = tuples[::-1]
    return new_tup
tuples = ('a','m','e','r','k','w','e','j')
print(Reverse(tuples))
```

```
('j', 'e', 'w', 'k', 'r', 'e', 'm', 'a')
```

In [15]:
```
#17.Write a Python program to convert a list of tuples into a dictionary
def Convert(tup, di):
    for a, b in tup:
        di.setdefault(a, []).append(b)
    return di
tups = [("aasritha", 18), ("navya", 20), ("anand", 21),
     ("namratha", 10), ("suraj", 15), ("abhinav", 12)]
dictionary = {}
print (Convert(tups, dictionary))
```

```
{'aasritha': [18], 'navya': [20], 'anand': [21], 'namratha': [10], 'suraj': [15], 'abhinav':
[12]}
```

In [17]:
```
#18.Write a Python program to convert a list to a tuple.
listx = [12, 20, 7, 14, 5, 3]
print(listx)
tuplex = tuple(listx)
print(tuplex)
```

```
[12, 20, 7, 14, 5, 3]
(12, 20, 7, 14, 5, 3)
```