In [1]:
```
#3.program to sum all the items in the list
def sum_list(items):
    sum_numbers = 0
    for x in items:
        sum_numbers += x
    return sum_numbers
print(sum_list([1,2,-8]))
```

```
-5
```

In [2]:
```
#4.program to create a list of empty dictionaries
n = 5
l = [{} for _ in range(n)]
print(l)
```

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

In [3]:
```
#5.program to access dictionary keys ele by index
num = {'physics': 80, 'math': 90, 'chemistry': 86}
print(list(num)[0])
```

```
physics
```

In [4]:
```
#6.program to iterate over dictionaries using for loops
d = {'Red': 1, 'Green': 2, 'Blue': 3}
for color_key, value in d.items():
     print(color_key, 'corresponds to ', d[color_key])
```

```
Red corresponds to  1
Green corresponds to  2
Blue corresponds to  3
```

In [5]:
```
#7.program to sum all the items in the dictionary
my_dict = {'data1':100,'data2':-54,'data3':247}
print(sum(my_dict.values()))
```

```
293
```

In [23]:
```
#8.python script to concentrate following dictionaries to create a new o
ne
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 [24]:
```
#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 [9]:
```
#10.program to create a tuple
t = ("apple", "banana", "cherry")
print(t)
```

```
('apple', 'banana', 'cherry')
```

In [10]:
```
#11.program to create a tuple with diff data types
t1=('shru','143','krish')
print(t1)
```

```
('shru', '143', 'krish')
```

In [11]:
```
#12.program to covert a tuple to a string
tup = ('e', 'x', 'e', 'r', 'c', 'i', 's', 'e', 's')
str =  ''.join(tup)
print(str)
```

```
exercises
```

In [16]:
```
#13.program to slice a tuple
t1 = (2, 4, 3, 5, 4, 6, 7, 8, 6, 1)
slice = t1[3:5]
print(slice)
```

```
(5, 4)
```

In [17]:
```
#14.program to find the length of a tuple
t1 = (2, 4, 3, 5, 4, 6, 7, 8, 6, 1)
len(t1)
```

Out[17]:
```
10
```

In [19]:
```
#15.program to convert a tuple to dictionary
tuplex = ((2, "w"),(3, "r"))
print(dict((y, x) for x, y in tuplex))
```

```
{'w': 2, 'r': 3}
```

In [20]:
```
#16.program to reverse a tuple

x = (5, 10, 15, 20)
y = reversed(x)
print(tuple(y))
```

```
(20, 15, 10, 5)
```

In [21]:
```
#17.program to convert a list of tuples into a dictionary
l = [("x", 1), ("x", 2), ("x", 3), ("y", 1), ("y", 2), ("z", 1)]
d = {}
for a, b in l:
    d.setdefault(a, []).append(b)
print (d)
```

```
{'x': [1, 2, 3], 'y': [1, 2], 'z': [1]}
```

In [22]:
```
#18.program to convert a list to tuple
listx = [5, 10, 7, 4, 15, 3]
print(listx)
tuplex = tuple(listx)
print(tuplex)
```

```
[5, 10, 7, 4, 15, 3]
(5, 10, 7, 4, 15, 3)
```

In [ ]:
```

```