

In [2]: *#3 python program to sum all items in a list*

```
sum=0
list=[12,3,5,67,3,10]
for i in range(0,len(list)):
    sum=sum+list[i]
print("sum of elements in the list is:",sum)
```

sum of elements in the list is: 100

In [4]: *#4 python program to create a list of empty dictionaries.*

```
n=3
l=[{} for _ in range(n)]
print(l)
```

[{}, {}, {}]

In [6]: *#5 python program to access dictionary keys element by index.*

```
d1={"hello":32,"gitam":12,"hyderabad":21,"banglore":36,"vizag":5}
print("original dictionary is:"+str(d1))
print("key values are:")
for i in d1:
    print(i)
```

original dictionary is: {'hello': 32, 'gitam': 12, 'hyderabad': 21, 'banglore': 36, 'vizag': 5}
key values are:
hello
gitam
hyderabad
banglore
vizag

In [7]: *#6 Python program to iterate over dictionaries using for loop.*

```
d1={"banglore":32,"vizag":12,"hyderabad":21,"mumbai":36,"chennai":5}
for k,v in d1.items():
    print(k,v)
```

banglore 32
vizag 12
hyderabad 21
mumbai 36
chennai 5

In [8]: *#7 Python program to sum all items in the dictionary.*

```
def sum(d2):  
    sum=0  
    for i in d2:  
        sum=sum+d2[i]  
    return sum  
d2={"a":12,"b":8,"c":15}  
print("sum of items in the dictionary:",sum(d2))
```

sum of items in the dictionary: 35

In [9]: *#8 python script to concatenate the following dictionaries to create a new one. sample dictionary dic1={1:10,2:20} dic2={3:30,4:40} dic3={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 [10]: *#10 python program to create a tuple.*

```
t=5,10,15,20,25  
print(t)
```

(5, 10, 15, 20, 25)

In [11]: *#11 python program to create a tuple with different data types.*

```
t1=(1,6.9,"hi",False)  
print(t1)
```

(1, 6.9, 'hi', False)

In [12]: *#12 python program to convert a tuple in to a string.*

```
tuple=('h','e','l','l','o')  
str=''.join(tuple)  
print(str)
```

hello

In [13]: *#13 python program to slice a tuple*

```
t=(2,4,3,5,4,6,7,8,6,1)  
slice=t[3:5]  
print(slice)
```

(5, 4)

In [14]: *#14 python program to find the length of a tuple*

```
t3=(10,6,8,7,9,0,6,5)
print(len(t3))
```

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In [15]: *#15 python program to convert a tuple into a dictionary.*

```
def convert(tup,di):
    for a,b in tup:
        di.setdefault(a, []).append(b)
    return di
tups=[("akash",10),("gowtham",12),("ajay",25)]
dictionary={}
print(convert(tups,dictionary))
```

{'akash': [10], 'gowtham': [12], 'ajay': [25]}

In [16]: *#16 python program to reverse a tuple.*

```
def reverse(tuple):
    new_tuple=tuple[::-1]
    return new_tuple
tuple=(1,2,3,4,5,6,7,8,9)
print(reverse(tuple))
```

(9, 8, 7, 6, 5, 4, 3, 2, 1)

In [17]: *#17 python program to convert a list of tuples into a dictionary.*

```
l=[("x",1),("y",2),("z",3)]
d={}
for a,b in l:
    d.setdefault(a, []).append(b)
print(d)
```

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

In [18]: *#18 python program to convert a list in to a tuple.*

```
def convert(list):
    return (*list, )

list = [1, 2, 3, 4]
print(convert(list))
```

(1, 2, 3, 4)

In []: *#1 what is dictionary in python? Explain with an example.*

A Dictionary **is** used to **map or** associate the things you want to store the keys you need to get them.

Dictionary are defined into two elements keys **and** values. keys will be a single element.

example of dictionary: d1={"apple":1,"mango":2,"pineapple":4} apple,mango,banana are keys 1,2,4 are known **as** values.