Python Module-5 Assignment

1:What is dictionary in Python? Explain with an example

Python dictionary is an unordered collection of items. Each item of a dictionary has a key/value pair. Dictionaries are optimized to retrieve values when the key is known.

In [2]:

```python
a={"name":"Kambam Saketh","age":"19","sec":"A"}
print(a["name"])
print(a["age"])
print(a["sec"])
```

```
Kambam Saketh
19
A
```

2:What is dictionary in Python? Explain with an example

Python dictionary is an unordered collection of items. Each item of a dictionary has a key/value pair. Dictionaries are optimized to retrieve values when the key is known.

In [3]:

```python
a={"name":"Kambam Saketh","age":"19","sec":"A"}
print(a["name"])
print(a["age"])
print(a["sec"])
```

```
Kambam Saketh
19
A
```

3:Write a Python program to sum all the items in list

In [4]:

```python
l=[1,2,3,4,5,6,7,8,9,10]
sum=0
for i in l:
    sum+=i
print("Sum of all items in list:",sum)
```

```
Sum of all items in list: 55
```

4:Write a python program to create a list of empty dictionaries,

In [5]:

```python
n=int(input("Enter no.of dictionaries to insert into list:"))
l=[{}for i in range(n)]
print(l)
```

```
Enter no.of dictionaries to insert into list:5
[{}, {}, {}, {}, {}]
```

5:Write a Python program ta access dictionary keys element by index

In [10]:

```
n={'Maths':40,'Python':38,'Java':36}
for i in range(3):
    print(list(n)[i])
```

```
Maths
Python
Java
```

6:Write a Python program to iterate over dictionaries using for loops

In [11]:

```
a={"name":"Kambam Saketh","age":"19","sec":"A"}
for i,j in a.items():
    print(i,":",j)
```

```
name : Kambam Saketh
age : 19
sec : A
```

7:Write Python program to sum all the items in a dictionary

In [13]:

```
a={'a':100,'b':200,'c':300}
sum=0
for i in a:
    sum+=a[i]
print("Sum:",sum)
```

```
Sum: 600
```

8:Write a Python script to concatenate following dictionaries to create a new the. Purple Dictionary:

a. dicl={1:10,2:20} b. dic2={3:30,4:40} c. dic3={5:50,6:60}

1. Expected Result: (1:10,2:20,3:30,4:40,5:50,6:60)

In [15]:

```
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}
```

10:Write a python program to create a tuple

In [16]:

```
t=("Kambam","Saketh")
print(t)
```

```
('Kambam', 'Saketh')
```

11:Write a python program to create a tuple with different data types

In [17]:

```
t=("Kambam","Saketh",19,'A',"6")
```

```
print(t)
```

```
('Kambam', 'Saketh', 19, 'A', '6')
```

12:Write a python program to convert a tuple to a string

In [19]:

```
t=('S','a','k','e','t','h')
str=''.join(t)
print("After converting tuple into string:",str)
```

```
After converting tuple into string: Saketh
```

13:Write a python program to slice a tuple

In [20]:

```
t=(1,2,3,4,5,6,7,8,9,10)
s1=t[0:5]
print("Slice1:",s1)
s2=t[5:10]
print("Slice2:",s2)
```

```
Slice1: (1, 2, 3, 4, 5)
Slice2: (6, 7, 8, 9, 10)
```

14:Write a python program to find the length of tuple

In [21]:

```
t=(1,2,3,4,5,6,7,8,9,10)
print(t)
print("Length:",len(t))
```

```
(1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
Length: 10
```

15:Write a python program to convert tuple to a dictionary

In [24]:

```
t=((2,"a"),(3,"b"),(4,"c"))
print(dict((y,x) for x,y in t))
```

```
{'a': 2, 'b': 3, 'c': 4}
```

16:Write a python program to reverse a tuple

In [25]:

```
t=(1,2,3,4,5,6,7,8,9,10)
print("Before reversing tuple:",t)
t2=t[::-1]
print("After reversing tuple:",t2)
```

```
Before reversing tuple: (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
After reversing tuple: (10, 9, 8, 7, 6, 5, 4, 3, 2, 1)
```

17:Write a python program to convert list of tuples into dictionary

In [27]:

```
l=[('a',10),('b',20),('c',30),('d',40)]
d={}
for x,y in l:
    d.setdefault(x,[]).append(y)
print(d)
```

```
{'a': [10], 'b': [20], 'c': [30], 'd': [40]}
```

18:Write a python program to convert list into tuple

In [28]:

```
l=[1,2,3,4,5,6,7,8,9,10]
t=tuple(l)
print(t)
```

```
(1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
```

In [ ]:

```
l=[('a',10),('b',20),('c',30),('d',40)]
d={}
for x,y in l:
    d.setdefault(x,[]).append(y)
print(d)
```

```
{'a': [10], 'b': [20], 'c': [30], 'd': [40]}
```