Python Programming - 2101CS405

Lab - 6

Tuples, dictionary, set

A

01) WAP to sort python dictionary by key or value.

In [19]:
```python
temp = {}
n = int(input("Enter Length:"))
for i in range(1,n+1):
    key = input("Enter Key:")
    temp[key] = input("Enter Value:")
for i in sorted(temp):
    print(i,end=':')
    print(temp[i])

# print(f"{sorted(temp.keys)} : {temp[keys]}")
```

```
Enter Length:2
Enter Key:1
Enter Value:4
Enter Key:6
Enter Value:2
1:4
6:2
```

02) WAP to merge two dictionaries given by user.

In [25]:
```python
dict1,dict2 = {},{}
n = int(input("Enter Length of First Dictionary :"))
m = int(input("Enter Length of Second Dictionary:"))
for i in range(1,n+1):
    keysOfFirst = input("Enter Key:")
    dict1[keysOfFirst] = input("Enter Values:")
for j in range(1,m+1):
    keysofSec = input("Enter Keys:")
    dict2[keysofSec] = input("Enter Values:")
dict1.update(dict2)
print(dict1)
```

```
Enter Length of First Dictionary :2
Enter Length of Second Dictionary:2
Enter Key:1
Enter Values:4
Enter Key:5
Enter Values:8
Enter Keys:7
Enter Values:9
Enter Keys:
Enter Values:3
{'1': '4', '5': '8', '7': '9', '': '3'}
```

03) WAP to find tuples that have all elements divisible by K from a list of tuples.

```python
In [47]: listOfTupple = []
         n = int(input("Enter Length of List:"))
         m = int(input("Enter Length Of Tupple:"))
         for i in range(0,n):
             tupple = ()
             for j in range(0,m):
                 tupple += tuple(input("Enter Tupple Elements:"));
             listOfTupple.append(tupple)
             print("*****************************************")
         divisible_no = int(input("Enter Digit:"));
         for i in listOfTupple:
             for j in i:
                 if int(j)%divisible_no != 0:
                     break;
             else:
                 print(i)
         listOfTupple
```

```
Enter Length of List:5
Enter Length Of Tupple:3
Enter Tupple Elements:1
Enter Tupple Elements:4
Enter Tupple Elements:7
*****************************************
Enter Tupple Elements:8
Enter Tupple Elements:5
Enter Tupple Elements:2
*****************************************
Enter Tupple Elements:3
Enter Tupple Elements:6
Enter Tupple Elements:9
*****************************************
Enter Tupple Elements:2
Enter Tupple Elements:5
Enter Tupple Elements:8
*****************************************
Enter Tupple Elements:4
Enter Tupple Elements:1
Enter Tupple Elements:7
*****************************************
Enter Digit:3
('3', '6', '9')
```

```
Out[47]: [('1', '4', '7'),
          ('8', '5', '2'),
          ('3', '6', '9'),
          ('2', '5', '8'),
          ('4', '1', '7')]
```

04) WAP to find Tuples with positive elements in List of tuples.

```python
In [54]: listOfTupple = []
         n = int(input("Enter Length of List:"))
         m = int(input("Enter Length Of Tupple:"))
         for i in range(0,n):
             tupple = ()
             for j in range(0,m):
                 x = int(input("Enter Tuple Elements:"))
                 tupple += (x,);
             listOfTupple.append(tupple)
             print("*************************************")
         for i in listOfTupple:
             for j in i:
                 if int(j)<0:
                     break;
                 else:
                     print(i)
         listOfTupple
```

```
Enter Length of List:3
Enter Length Of Tupple:2
Enter Tuple Elements:-1
Enter Tuple Elements:-2
*****************************************
Enter Tuple Elements:4
Enter Tuple Elements:-5
*****************************************
Enter Tuple Elements:9
Enter Tuple Elements:6
*****************************************
(9, 6)
```

```
Out[54]: [(-1, -2), (4, -5), (9, 6)]
```

05) WAP which perform union of two sets.

```python
In [55]: set1 = set()
         set2 = set()
         for i in range(int(input("Enter the number of elements you want to enter in set:"))):
             set1.add(int(input("Enter the element:")))
         for i in range(int(input("Enter the number of elements you want to enter in set:"))):
             set2.add(int(input("Enter the element:")))
         print(set1.union(set2))
```

```
Enter the number of elements you want to enter in set:3
Enter the element:1
Enter the element:4
Enter the element:7
Enter the number of elements you want to enter in set:6
Enter the element:5
Enter the element:8
Enter the element:4
Enter the element:5
Enter the element:8
Enter the element:6
{1, 4, 5, 6, 7, 8}
```

B

01) WAP to convert binary tuple into integer.

```python
In [56]: set3 = ()
         for j in range(int(input("Enter the number of elements you want to enter in tuples:"))):
             set3 += (tuple(input("Enter the element:")))
         ans = int(''.join(str(i) for i in set3),2)
         ans
```

```
Enter the number of elements you want to enter in tuples:4
Enter the element:1
Enter the element:0
Enter the element:1
Enter the element:0
```

```
Out[56]: 10
```

02) WAP to count frequency in list by dictionary.

In [58]:
```python
temp11 = []
for i in range(int(input("Enter the number of elements in the list:"))):
    temp11.append(int(input("Enter the element:")))
temp12 = {}
for i in temp11:
    temp12[i] = temp11.count(i)
for i in temp12:
    print("The frequency of {} is {}".format(i,temp12[i]))
print(temp12)
```

```
Enter the number of elements in the list:8
Enter the element:4
Enter the element:1
Enter the element:7
Enter the element:5
Enter the element:4
Enter the element:1
Enter the element:1
Enter the element:7
The frequency of 4 is 2
The frequency of 1 is 3
The frequency of 7 is 2
The frequency of 5 is 1
{4: 2, 1: 3, 7: 2, 5: 1}
```

03) WAP to remove all the duplicate words from the list using dictionary.

In [61]:
```python
temp13 = []
for i in range(int(input("Enter the number of elements in the list:"))):
    temp13.append(input("Enter the element:"))
temp14 = {}
for i in temp13:
    temp14[i] = temp13.count(i)
for i in temp14:
    if(temp14[i]>1):
        for j in range(1,temp14[i]):
            temp13.remove(i)
temp13
```

```
Enter the number of elements in the list:5
Enter the element:devika
Enter the element:devika
Enter the element:dk
Enter the element:dk
Enter the element:abc
```

Out[61]: ['devika', 'dk', 'abc']

In [ ]: