Programming Assingment 12

1. Write a Python program to Extract Unique values dictionary values?
2. Write a Python program to find the sum of all items in a dictionary?
3. Write a Python program to Merging two Dictionaries?
4. Write a Python program to convert key-values list to flat dictionary?
5. Write a Python program to insertion at the beginning in OrderedDict?
6. Write a Python program to check order of character in string using OrderedDict()?
7. Write a Python program to sort Python Dictionaries by Key or Value?

In [1]:
```
#1. Write a Python program to Extract Unique values dictionary values?

test_dict = {'key1' : [5, 6, 7, 8,12,4,5,3,7,],
             'key2' : [10, 11, 7, 5],
             'key3' : [6, 12, 10,7, 8],
             'key4' : [1, 2, 5,9,13]}
vals= test_dict.values()
vals1={ele for val in test_dict.values() for ele in val}

print('The Unique dictionary values are: ',vals1)
```

```
The Unique dictionary values are:  {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13}
```

In [2]:
```
#2. Write a Python program to find the sum of all items in a dictionary?
test_dict = {'num1' : 34,
             'num2' : 78,
             'num3' : 98,
             'num4' : 76}
sum=0
for i in test_dict:
    print('Value with ',i, ' key is: ', test_dict[i])
    sum +=test_dict[i]

print('sum of all items in a dictionary: ',sum)
```

```
Value with  num1  key is:  34
Value with  num2  key is:  78
Value with  num3  key is:  98
Value with  num4  key is:  76
sum of all items in a dictionary:  286
```

In [3]:
```
#3. Write a Python program to Merging two Dictionaries?test_dict = {'key1' : [5, 6,
test_dict = {'key1' : [5, 6, 7, 8,12,4,5,3,7,],
             'key2' : [10, 11, 7, 5],
             'key3' : [6, 12, 10,7, 8],
             'key4' : [1, 2, 5,9,13]}
test_dict1 = {'num1' : 34,
             'num2' : 78,
             'num3' : 98,
             'num4' : 76}
test_dict.update(test_dict)
```

In [4]:
```
#4. Write a Python program to convert key-values list to flat dictionary?
months={'num' : [1,2,3,4,5, 6, 7, 8,9,10,11,12],
             'name' : ['Jan', 'Feb', 'Mar','Apr','May','Jun', 'Jul',"Aug",'Sep','Oct
print('Original dictionary: ',months)
monthflat = dict(zip(months['num'],months['name']))
print('Flattened dictionary: ',monthflat)
```

```
Original dictionary:  {'num': [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12], 'name': ['Ja
```

```
n', 'Feb', 'Mar', 'Apr', 'May', 'Jun', 'Jul', 'Aug', 'Sep', 'Oct', 'Nov', 'Dec']}
Flattened dictionary:  {1: 'Jan', 2: 'Feb', 3: 'Mar', 4: 'Apr', 5: 'May', 6: 'Jun',
7: 'Jul', 8: 'Aug', 9: 'Sep', 10: 'Oct', 11: 'Nov', 12: 'Dec'}
```

In [5]:
```
#5. Write a Python program to insertion at the beginning in OrderedDict?
test_dict = {'d' : [1, 2, 5,9,13], 'a' : [5, 6, 7, 8,12,4,5,3,7,],
             'b' : [10, 11, 7, 5],
             'c' : [6, 12, 10,7, 8],
             }

from collections import OrderedDict
od=OrderedDict()
od.update(test_dict)
od.update({'e':[1,3]})
od.move_to_end('e',last=False)
od
```

Out[5]:
```
OrderedDict([('e', [1, 3]),
             ('d', [1, 2, 5, 9, 13]),
             ('a', [5, 6, 7, 8, 12, 4, 5, 3, 7]),
             ('b', [10, 11, 7, 5]),
             ('c', [6, 12, 10, 7, 8])])
```

In [6]:
```
#6. Write a Python program to check order of character in string using OrderedDict()
from collections import OrderedDict
string='ASDFASDF weaAsdfew asdf43m1'
odstring= dict(OrderedDict.fromkeys(string))
charstring='1amf'
order=OrderedDict()
part=0


for i in range(len(string)):
    for j in range(len(charstring)):
        if (charstring[j] ==string[i] ):
            order[charstring[j]]= i
            part+=1

if  part >= 1:
    print('The pattern is present in the string ')
    print('the Order of the charaters and their postion in the string is: ')
    for key, value in order.items():
        print(key, '-->', value)
else:
    print('The pattern is not present in the string')
```

```
The pattern is present in the string
the Order of the charaters and their postion in the string is:
a --> 19
f --> 22
m --> 25
1 --> 26
```

In [7]:
```
#7. Write a Python program to sort Python Dictionaries by Key or Value?
```

In [8]:
```
from collections import OrderedDict
sort_key={'Z':43,'G':34,'E':98,'l':897,"9":90}
sorted_dict=OrderedDict(sorted(sort_key.items()))
print('Sorted Dictionary items: ', sorted_dict.items())
```

```
Sorted Dictionary items:  odict_items([('9', 90), ('E', 98), ('G', 34), ('Z', 43),
('l', 897)])
```