Python Basic Programming Assignment 12

1. Write a Python program to Extract Unique values dictionary values?

In [11]:
```
test_dict={'a':[1,4,2,7],
           'b':[6,4,8,5],
           'c':[9,12,43,16]}
print({ele for var in test_dict.values() for ele in var})
```

```
{1, 2, 4, 5, 6, 7, 8, 9, 43, 12, 16}
```

2. Write a Python program to find the sum of all items in a dictionary?

In [13]:
```
test_dict={'a':4,
           'b':5,
           'c':11}
print(sum(test_dict.values()))
```

```
20
```

3. Write a Python program to Merging two Dictionaries?

In [3]:
```
dict1={'a':1, 'b':2}
dict2={'x':3, 'y':4}
dict3={**dict1,**dict2}
print(dict3)
```

```
{'a': 1, 'b': 2, 'x': 3, 'y': 4}
```

4. Write a Python program to convert key-values list to flat dictionary?

In [7]:
```
test_dict = {'month' : [1, 2, 3],
             'name' : ['Jan', 'Feb', 'March']}

# printing original dictionary
print("The original dictionary is : ", test_dict)

# Convert key-values list to flat dictionary
# Using dict() + zip()
res = dict(zip(test_dict['month'], test_dict['name']))

# printing result
print("Flattened dictionary : ", res)
```

```
The original dictionary is :  {'month': [1, 2, 3], 'name': ['Jan', 'Feb', 'Marc
h']}
Flattened dictionary :  {1: 'Jan', 2: 'Feb', 3: 'March'}
```

5. Write a Python program to insertion at the beginning in OrderedDict?

In [15]:
```
from collections import OrderedDict
dict1=OrderedDict[('b',2),('c',3)]
dict1.update({'a':1})
dict1.move_to_end('a',last=False)
print(dict1)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In [15], line 3
      1 from collections import OrderedDict
      2 dict1=OrderedDict[('b',2),('c',3)]
----> 3 dict1.update({'a':1})
      4 dict1.move_to_end('a',last=False)
      5 print(dict1)

TypeError: descriptor 'update' for 'collections.OrderedDict' objects doesn't apply
to a 'dict' object
```

6. Write a Python program to check order of character in string using OrderedDict()?

In [16]:
```
from collections import OrderedDict

def checkOrder(input, pattern):

    # create empty OrderedDict
    # output will be like {'a': None,'b': None, 'c': None}
    dict = OrderedDict.fromkeys(input)

    # traverse generated OrderedDict parallel with
    # pattern string to check if order of characters
    # are same or not
    ptrlen = 0
    for key,value in dict.items():
        if (key == pattern[ptrlen]):
            ptrlen = ptrlen + 1

        # check if we have traverse complete
        # pattern string
        if (ptrlen == (len(pattern))):
            return 'true'

    # if we come out from for loop that means
    # order was mismatched
    return 'false'

# Driver program
if __name__ == "__main__":
    input = 'engineers rock'
    pattern = 'er'
    print (checkOrder(input,pattern))
```

```
true
```

7. Write a Python program to sort Python Dictionaries by Key or Value?

In [17]:
```
from collections import OrderedDict

dict = {'ravi': '10', 'rajnish': '9',
        'sanjeev': '15', 'yash': '2', 'suraj': '32'}
dict1 = OrderedDict(sorted(dict.items()))
print(dict1)
```

```
OrderedDict([('rajnish', '9'), ('ravi', '10'), ('sanjeev', '15'), ('suraj', '32'),
('yash', '2')])
```

In [ ]: