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

Ans:

In [2]:
```
#unique values
my_dict = {'Jan' : [1,15,7],'March' : [22],'May' : [17, 1,7],'July' : [11]}
print("The dictionary is : ", my_dict)
print("Unique values: ")
output = list(sorted({ele for val in my_dict.values() for ele in val}))
print(output)
```

```
The dictionary is :  {'Jan': [1, 15, 7], 'March': [22], 'May': [17, 1, 7], 'July': [11]}
Unique values:
[1, 7, 11, 15, 17, 22]
```

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

Ans:

In [2]:
```
#sum of values in dict
my_dict = {'Jan' : 15,'March' : 22,'May' : 1,'July' : 11}
print("The dictionary is : ", my_dict)
print("Sum of values: ")
output = sum(my_dict.values())
print(output)
```

```
The dictionary is :  {'Jan': 15, 'March': 22, 'May': 1, 'July': 11}
Sum of values:
49
```

3. Write a Python program to Merging two Dictionaries?

Ans:

In [7]:
```
#merge two dictionaries
dict1 = {'T' : [1,15,7],'K' : [22],'A' : [17,7],'N' : [11]}
dict2 = {'Jan' : 15,'March' : 22,'May' : 1,'July' : 11}
dict3 = print(dict1|dict2)
#dict4 = print({**dict1, **dict2})
```

```
{'T': [1, 15, 7], 'K': [22], 'A': [17, 7], 'N': [11], 'Jan': 15, 'March': 22, 'May': 1, 'July': 11}
```

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

Ans:

In [8]:
```
my_dic= { "Country": ['India', 'Germany', 'Poland'], "Cities": ['Bangalore', 'Berlin', 'Krakow'] }
print("Original dictionary: ",my_dic)
f_dic= dict(zip(my_dic["Country"], my_dic["Cities"]))
print("Flat dictionary: ", f_dic)
```

```
Original dictionary:  {'Country': ['India', 'Germany', 'Poland'], 'Cities': ['Bangalore', 'Berlin', 'Krakow']}
Flat dictionary:  {'India': 'Bangalore', 'Germany': 'Berlin', 'Poland': 'Krakow'}
```

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

Ans:

In [9]:
```
from collections import OrderedDict
my_dic = OrderedDict([('Jan', '15'), ('March', '22'), ('May', '17')])
add = OrderedDict([('July', '11')])
new = OrderedDict(list(add.items()) + list(my_dic.items()))
print ("Dictionary after insertion of new element :", new)
```

```
Dictionary after insertion of new element : OrderedDict([('July', '11'), ('Jan', '15'), ('March', '22'), ('May', '17')])
```

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

Ans:

In [1]:

```
#check order of character in string using OrderedDict()
from collections import OrderedDict
string = 'Europe'
print("The string is ", string)
char = str(input('Enter a pattern of character: '))
def check_order(string, char):
    my_dict = OrderedDict.fromkeys(string)
    n = 0
    for key,value in my_dict.items():
        if (key == char[n]):
            n += 1
        if (n == (len(char))):
            return True
    return False
check_order(string,char)
```

```
The string is  Europe
Enter a pattern of character: rope
```

Out[1]: True

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

Ans:

In [3]:

```
#sort dictionaries by Keys
my_dict = {'Jan' : 15,'March' : 22,'May' : 1,'July' : 11}
for i in sorted(my_dict.keys()) :
     print(i, end = " ")
```

```
Jan July March May
```

In [6]:

```
#sort dictionaries by Values (descending)
my_dict = {'Jan' : 15,'March' : 22,'May' : 1,'July' : 11}
for i in sorted(my_dict.items(), key=lambda x: x[1], reverse=True) :
    print(i[0], i[1])
```

```
March 22
Jan 15
July 11
May 1
```