

Python Basic Programming Assignment 12

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

In [15]:

```
1 dict1 = {'k1': 1, 'k2': 1, 'k3': 'hello', 'k4': 'hello', 'k5':1234}
```

In [18]:

```
1 unique_values = {i for i in dict1.values()}
```

In [19]:

```
1 unique_values
```

Out[19]:

```
{1, 1234, 'hello'}
```

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

In [22]:

```
1 test_dict = {'k1' : 89,  
2             'k2' : 111,  
3             'k3' : 123,  
4             'k4' : 5}  
5  
6 sum = 0  
7 for i in test_dict.values():  
8     sum += sum + i  
9 print("Sum of all values is : {}".format(sum))
```

Sum of all values is : 1407

3. Write a Python program to Merging two Dictionaries?

In [24]:

```
1 dict1 = { 'x': 1, 'l': 2}  
2 dict2 = { 'k': 3, 'z': 4, 'x': 11}  
3 # merging dict2 into dict1  
4 for item in dict2.items():  
5     dict1.setdefault(item[0], item[1])  
6 print(dict1)
```

```
{'x': 1, 'l': 2, 'k': 3, 'z': 4}
```

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

In [25]:

```
1 test_dict = {'month' : [1, 2, 3], 'name' : ['Jan', 'Feb', 'March']}
2
3 # Using dict() + zip() to convert key-values list to flat dictionary
4 res = dict(zip(test_dict['month'], test_dict['name']))
5
6 print("Flattened dictionary : " + str(res))
```

Flattened dictionary : {1: 'Jan', 2: 'Feb', 3: 'March'}

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

In [28]:

```
1 from collections import OrderedDict
2
3 # initialising ordered_dict
4 iniordered_dict = OrderedDict([('Feb', '2'), ('Mar', '3')])
5
6 # inserting items in starting of dict
7 iniordered_dict.update({'Jan': '1'})
8 iniordered_dict.move_to_end('Jan', last = False)
9
10 # print result
11 print ("Ordered Dictionary after insertion : "+str(iniordered_dict))
```

Ordered Dictionary after insertion : OrderedDict([('Jan', '1'), ('Feb', '2'), ('Mar', '3')])

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

In [4]:

```

1  from collections import OrderedDict
2
3  def checkOrderofString(str, pattern):
4
5      # create empty OrderedDict
6      dict = OrderedDict.fromkeys(str)
7      print(dict)
8      ptrlen = 0
9      for key,value in dict.items():
10
11          if (key == pattern[ptrlen]):
12              ptrlen = ptrlen + 1
13
14          # check if we have traverse complete pattern string
15          if (ptrlen == (len(pattern))):
16              return 'true'
17
18          # if we come out from for loop that means order was mismatched
19          return 'false'
20
21
22 string = input("enter string : ")
23 pattern = input("Enter Pattern : ")
24 if checkOrderofString(string,pattern):
25     print("Pattern matched")
26 else:
27     print("Pattern not matched")

```

```

enter string : Programming
Enter Pattern : gram
OrderedDict([('P', None), ('r', None), ('o', None), ('g', None), ('a', None), ('m', None), ('i', None), ('n', None)])
Pattern matched

```

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

In [11]:

```

1  a = {'k1':2, 'k2':1, 'k3':3, '4':4, '6':6, 'key7':7}
2  #this will print a sorted list of the keys
3  print(sorted(a.keys()))
4  #this will print the sorted list with items.
5  print(sorted(a.items()))
6  #a = {1:2, 2:1, 4:3, 3:4, 6:5, 5:6}
7  print(sorted(a.values()))
8  #this will print a sorted list of values.

```

```

['4', '6', 'k1', 'k2', 'k3', 'key7']
[('4', 4), ('6', 6), ('k1', 2), ('k2', 1), ('k3', 3), ('key7', 7)]
[1, 2, 3, 4, 6, 7]

```

In []:

1

