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Python Programming - 2101CS405

Lab - 6

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Tuples, dictionary, set

A

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

In [27]:
```
dict = {1:'d',3:'r',2:'s',5:'k',4:'t'}

A = list(dict.keys())
A.sort()
print(A)

a={i:dict[i] for i in A}
print(a)

B = list(dict.values())
B.sort()
print(B)

thdict = {}

for j in B:
    for k in a:
        if(j == dict[k]):
            thdict[k] = j

print(thdict)
```

```
[1, 2, 3, 4, 5]
{1: 'd', 2: 's', 3: 'r', 4: 't', 5: 'k'}
['d', 'k', 'r', 's', 't']
{1: 'd', 5: 'k', 3: 'r', 2: 's', 4: 't'}
```

02) WAP to merge two dictionaries given by user.

In [38]:
```
dict1 = {1:'krish',2:'rutvik',3:'soham'}
dict2 = {4:'ayush',5:'abhishek'}

dict1.update(dict2)
print(dict1)

n = int(input("n:"))
dict3 = {}

for i in range(0,n):
    key = int(input("key:"))
    value = input("values:")
    dict3[key] = value

print(dict3)

dict1.update(dict3)

print(dict1)
```

```
{1: 'krish', 2: 'rutvik', 3: 'soham', 4: 'ayush', 5: 'abhishek'}
n:3
key:6
values:lalit
key:7
values:jeel
key:8
values:ansh
{6: 'lalit', 7: 'jeel', 8: 'ansh'}
{1: 'krish', 2: 'rutvik', 3: 'soham', 4: 'ayush', 5: 'abhishek', 6: 'lalit',
7: 'jeel', 8: 'ansh'}
```

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

In [44]:
```
a = [(1,3,5),(2,4,6)]

k = int(input("Enter divisalbe value:"))

for i in a:
    count = 0
    for j in i:
        if(j%k!=0):
            count+=1
    if(count == 0):
        print(i)

res = list(filter(lambda divk:all(i%k==0 for i in divk),a))

print(res)
```

```
Enter divisalbe value:2
(2, 4, 6)
[(2, 4, 6)]
```

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

In [47]:
```
A = [(-2,-7,8),(-8,5,4),(1,2,3)]

res = list(filter(lambda divk:all(i>0 for i in divk),A))

print(res)
```

```
[(1, 2, 3)]
```

05) WAP which perform union of two sets.

In [46]:
```
set1 = {1,2,5,8,9}
set2 = {1,7,65,78,52}

res = set1.union(set2)
print(res)
```

```
{1, 2, 65, 5, 7, 8, 9, 78, 52}
```

B

01) WAP to convert binary tuple into integer.

In [5]:
```
a = (1, 1, 0, 1, 0, 0, 1)


res = int("".join(str(i) for i in a), 2)

print(str(res))
```

```
105
```

02) WAP to count frequency in list by dictionary.

In [56]:
```
original_list = [1,2,1,6,7,8,8,9,6,2]
Dictionary = {}
for i in original_list:
    Dictionary[i]=original_list.count(i)

print(Dictionary)
```

```
{1: 2, 2: 2, 6: 2, 7: 1, 8: 2, 9: 1}
```

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

In [8]:
```
d=[1,2,3,4,5,6,7,8,9,1,2,3,4,5,6,7,8,9,1,2,3,4,5,6,7,8,9,1,2,3,4,5,6,7,8,91,2,

couD={}

for i in d:
    couD[i]=d.count(i)


print(couD.keys())
print(couD.items())
```

```
dict_keys([1, 2, 3, 4, 5, 6, 7, 8, 9, 91])
dict_items([(1, 5), (2, 6), (3, 6), (4, 6), (5, 6), (6, 6), (7, 6), (8, 6),
(9, 5), (91, 1)])
```

In [ ]:
```

```