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Python Programming - 2101CS405

Lab - 6

Tuples, dictionary, set

In [3]:
```
# cretae custom dictionary
my_dict = {}
n = 2
for i in range(n):
    a = input("Enter Key : ")
    my_dict[a] = input("Enter Value : ")
print(my_dict)
```

```
Enter Key : 2
Enter Value : hi
Enter Key : 3
Enter Value : bye
{'2': 'hi', '3': 'bye'}
```

In [1]:
```
# looping through dictionary
my_dict = {3: 'x', 5: 'a', 1: 'z', 4: 'b', 2: 'y'}
for i in my_dict:
    print("Key : ", i , " Value : ", my_dict[i] )
```

```
Key :  3  Value :  x
Key :  5  Value :  a
Key :  1  Value :  z
Key :  4  Value :  b
Key :  2  Value :  y
```

In [9]:
```
# finding a value in dictionary
my_dict = {3: 'x', 5: 'a', 1: 'z', 4: 'b', 2: 'y'}

def find_val(find_val):
    global my_dict
    for i in my_dict:
        if(my_dict[i] == find_val):
            print("Found val at key : ", i)
            break
    else:
        print("Val Not Found")

find_val('b')
find_val('f')
```

```
Found val at key :  4
Val Not Found
```

In [10]:
```
# check if a key is there or not in a dictionary
my_dict = {3: 'x', 5: 'a', 1: 'z', 4: 'b', 2: 'y'}

def find_key(find_key):
    global my_dict
    if find_key in my_dict:
        print("Key Exists")
    else:
        print("No key found")

find_key(2)
find_key('2')
```

```
Key Exists
No key found
```

A

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

In [3]:
```

```

```
Original dictionary: {3: 'x', 5: 'a', 1: 'z', 4: 'b', 2: 'y'}
Sorted dictionary by key: {1: 'z', 2: 'y', 3: 'x', 4: 'b', 5: 'a'}
Sorted dictionary by value: {5: 'a', 4: 'b', 3: 'x', 2: 'y', 1: 'z'}
```

02) WAP to merge two dictionaries given by user.

In [5]:
```

```

```
Original dictionaries:
{'a': 1, 'b': 2, 'c': 3}
{'d': 4, 'e': 5, 'f': 6}
Merged dictionary:
{'a': 1, 'b': 2, 'c': 3, 'd': 4, 'e': 5, 'f': 6}
```

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

In [9]:

```
List of Tuple :  [(1, 2, 3), (4, 5, 6), (7, 8, 9), (3, 6), (9, 12)]
Enter K :  3
[(3, 6), (9, 12)]
```

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

In [12]:

```
List of Tuple :  [(1, 2, 3), (4, 5, 6), (7, 8, 9), (0, -1, -2), (-4, -5, -6), (4, -
5, 6)]
Tuples with positive elements in list of tuples:
[(1, 2, 3), (4, 5, 6), (7, 8, 9)]
```

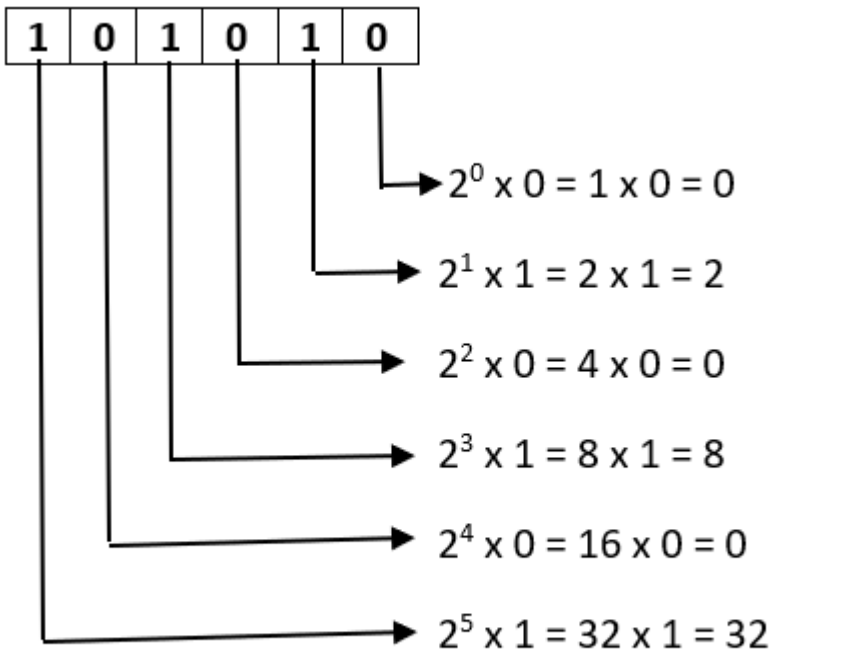
05) WAP which perform union of two sets.

In [13]:

```
Set 1 :  {1, 2, 3, 4, 5}
Set 2 :  {3, 4, 5, 6, 7}
Union :  {1, 2, 3, 4, 5, 6, 7}
```

B

01) WAP to convert binary tuple into integer.



Resultant decimal number= 0+2+0+8+0+32 = **42**

In [12]:
```
n = 5
for i in range(5):
    print(n-i)
```

```
5
4
3
2
1
```

In [15]:
```

```

```
Original tuple: (1, 0, 1, 0, 1)
Integer: 21
```

02) WAP to count frequency in list by dictionary.

In [16]:
```

```

```
Original list :  [1, 2, 3, 4, 5, 1, 2, 3, 4, 5]
Dictionary :  {1: 2, 2: 2, 3: 2, 4: 2, 5: 2}
```

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

In [24]:
```

```

```
List with duplicate elements: ['red', 'orange', 'yellow', 'green', 'blue', 'violet',
'red', 'orange', 'yellow', 'green', 'blue', 'violet']
List without duplicate elements: ['red', 'orange', 'yellow', 'green', 'blue', 'viole
t']
Dictionary with unique elements: {'red': 2, 'orange': 2, 'yellow': 2, 'green': 2, 'b
lue': 2, 'violet': 2}
```