Practical 5

**Working with Data structure - Part II:**

**Write a program to map 2 lists into a dictionary.**

**Code:**

keys = ['First Name','Middle Name', 'Last Name']

values = ['Mohammad','Mehmudbhai','Patel']

color\_dictionary = dict(zip(keys,values))

print(color\_dictionary)

**Output:**

{'First Name': 'Mohammad', 'Middle Name': 'Mehmudbhai', 'Last Name': 'Patel'}

**Write a program to invert keys and values of dictionary.**

**Code:**

D1={'First Name': 'Mohammad', 'Middle Name': 'Mehmudbhai', 'Last Name': 'Patel'}

print("initial Dectonary:",D1)

#lambda Function

D1={v:k for k,v in D1.items()}

print("After inverting:",D1)

#using dict,keys() and dict.values()

D2={'Animal':'Dog','colour':'red','fruite':'Mango'}

print("Befor inverting:",D2)

D2=dict(zip(D2.values(),D2.keys()))

print("After inverting:",D2)

#using inverse map method

D3={201: 'ball', 101: 'akshat'}

print("Befor inverting:",D3)

D3=dict(map(reversed,D3.items()))

print("After inverting:",D3)

**Output:**

initial Dectonary: {'First Name': 'Mohammad', 'Middle Name': 'Mehmudbhai', 'Last Name': 'Patel'}

After inverting: {'Mohammad': 'First Name', 'Mehmudbhai': 'Middle Name', 'Patel': 'Last Name'}

Befor inverting: {'Animal': 'Dog', 'colour': 'red', 'fruite': 'Mango'}

After inverting: {'Dog': 'Animal', 'red': 'colour', 'Mango': 'fruite'}

Befor inverting: {201: 'ball', 101: 'akshat'}

After inverting: {'ball': 201, 'akshat': 101}

**Write a program to generate dictionary of frequency of alphabets of given string.**

**Code:**

l1="MyNameIsMohammad"

l2={}

for i in l1:

if i in l2:

l2[i]+=1

else:

l2[i]=1

print("Count of all the element in the given string is:\n",l2)

**Output**

Count of all the element in the given string is:

{'M': 2, 'y': 1, 'N': 1, 'a': 3, 'm': 3, 'e': 1, 'I': 1, 's': 1, 'o': 1, 'h': 1, 'd': 1}

**Write a Python program to sum all the items in a dictionary.**

**Code:**

import sys

l1={'key1':10,'key2':42,'key3':100}

s=sum(l1.values())

print(s)

**Output:**

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**Write a script to concatenate given dictionaries**

**Code:**

l1={'programming':['c','c++','java','python'],'key':12}

l2={'DataStructure':'stack','Animal':'Horse'}

l1.update(l2)

print(l1)

**Output:**

{'programming': ['c', 'c++', 'java', 'python'], 'key': 12, 'DataStructure': 'stack', 'Animal': 'Horse'}

f) **Create a dictionary where keys are name of students and values are another dictionary containing semester, age and CPI of that student.**

**∙ Print all the names of students.**

**∙ Print only names of students**

**∙ Print the name of student having highest CPI**