Asignment Dictionary/Lists

1. Below are the two lists convert it into the dictionary

keys = ['Ten', 'Twenty', 'Thirty']

values = [10, 20, 30]

**Expected output:**

{'Ten': 10, 'Twenty': 20, 'Thirty': 30}

#### Merge following two Python dictionaries into one

dict1 = {'Ten': 10, 'Twenty': 20, 'Thirty': 30}

dict2 = {'Thirty': 30, 'Fourty': 40, 'Fifty': 50}

**Expected output:**

{'Ten': 10, 'Twenty': 20, 'Thirty': 30, 'Fourty': 40, 'Fifty': 50}

#### 3. Access the value of key ‘history’

sampleDict = {

"class":{

"student":{

"name":"Mike",

"marks":{

"physics":70,

"history":80

}

}

}

}

#### Initialize dictionary with default values

employees = ['Kelly', 'Emma', 'John']

defaults = {"designation": 'Application Developer', "salary": 8000}

#### Create a new dictionary by extracting the following keys from a given dictionary

sampleDict = {

"name": "Kelly",

"age":25,

"salary": 8000,

"city": "New york"}

**Keys to extract**

keys = ["name", "salary"]

**Expected output:**

{'name': 'Kelly', 'salary': 8000}

#### Delete set of keys from Python Dictionary using comprehension

sampleDict = {

"name": "Kelly",

"age":25,

"salary": 8000,

"city": "New york"

}

keysToRemove = ["name", "salary"]

**Expected output:**

{'city': 'New york', 'age': 25}

#### Rename key city to location in the following dictionary

sampleDict = {

"name": "Kelly",

"age":25,

"salary": 8000,

"city": "New york"

}

**Expected output: (Hint:use pop)**

{

"name": "Kelly",

"age":25,

"salary": 8000,

"location": "New york"

}

#### Get the key corresponding to the minimum value from the following dictionary

sampleDict = {

'Physics': 82,

'Math': 65,

'history': 75

}

**Expected output:**

Math

#### Write code to flip a dictionary — that is, to exchange its keys and values.

1. Create a database in the following format

Values = Router1 1.1.1.1 zframez zframez

Keys = (name) (IP) (username) (pwd)

1. Write a python program to print the value of a given key
2. Write a python program to check whether the given key is present, if present print the value , else add a new key and value
3. Create a database in the following format

Interface IP status

Ethernet0 1.1.1.1 up

Ethernet1 2.2.2.2 down

Serial0 3.3.3.3 up

Serial1 4.4.4.4 up

1. Write a python program to find status of a given interface
2. Write a python program to find interface and IP of all interfaces which are up
3. Write a python program to count how many ethernet interfaces are there
4. Write a python program to add a new entry to above database
5. Write a Python script to concatenate following dictionaries to create a new one.

Sample Dictionary :  
dic1={1:10, 2:20}  
dic2={3:30, 4:40}  
dic3={5:50,6:60}  
Expected Result : {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}

#### **19** Write a Python script to generate and print a dictionary that contains a number (between 1 and n) in the form (x, x\*x).  Sample Dictionary ( n = 5) : Expected Output : {1: 1, 2: 4, 3: 9, 4: 16, 5: 25}

#### 20. Write a Python program to multiply all the items in a dictionary

#### 21. Write a Python program to map two lists into a dictionary.

#### 22. Write a Python program to get the maximum and minimum value in a dictionary using lambda function.

#### 23. Write a Python program to remove duplicate values from a dictionary.

#### 24. Write a Python program to combine values in python list of dictionaries.  Sample data: [{'item': 'item1', 'amount': 400}, {'item': 'item2', 'amount': 300}, {'item': 'item1', 'amount': 750}] Expected Output: Counter({'item1': 1150, 'item2': 300})

#### **25.** Write a Python program to create a dictionary from a string.  Note: Track the count of the letters from the string. Sample string : 'w3resource' Expected output: {'w': 1, '3': 1, 'r': 2, 'e': 2, 's': 1, 'o': 1, 'u': 1, 'c': 1}alues from Dictionary.

#### 26. Write a Python program to get the top three items in a shop.  Sample data: {'item1': 45.50, 'item2':35, 'item3': 41.30, 'item4':55, 'item5': 24} Expected Output: item4 55 item1 45.5 item3 41.3

#### 27. Write a Python program to match key values in two dictionaries. Sample dictionary: {'key1': 1, 'key2': 3, 'key3': 2}, {'key1': 1, 'key2': 2} Expected output: key1: 1 is present in both x and y

#### **28.** Write a Python program to store a given dictionary in a json file.  Original dictionary: {'students': [{'firstName': 'Nikki', 'lastName': 'Roysden'}, {'firstName': 'Mervin', 'lastName': 'Friedland'}, {'firstName': 'Aron ', 'lastName': 'Wilkins'}], 'teachers': [{'firstName': 'Amberly', 'lastName': 'Calico'}, {'firstName': 'Regine', 'lastName': 'Agtarap'}]} <class 'dict'> Json file to dictionary: {'students': [{'firstName': 'Nikki', 'lastName': 'Roysden'}, {'firstName': 'Mervin', 'lastName': 'Friedland'}, {'firstName': 'Aron ', 'lastName': 'Wilkins'}], 'teachers': [{'firstName': 'Amberly', 'lastName': 'Calico'}, {'firstName': 'Regine', 'lastName': 'Agtarap'}]}

#### **29.** Write a Python program to convert more than one list to nested dictionary.  Original strings: ['S001', 'S002', 'S003', 'S004'] ['Adina Park', 'Leyton Marsh', 'Duncan Boyle', 'Saim Richards'] [85, 98, 89, 92] Nested dictionary: [{'S001': {'Adina Park': 85}}, {'S002': {'Leyton Marsh': 98}}, {'S003': {'Duncan Boyle': 89}}, {'S004': {'Saim Richards': 92}}]

#### **30.** Write a Python program to find the length of a given dictionary values.  Original Dictionary: {1: 'red', 2: 'green', 3: 'black', 4: 'white', 5: 'black'} Length of dictionary values: {'red': 3, 'green': 5, 'black': 5, 'white': 5} Original Dictionary: {'1': 'Austin Little', '2': 'Natasha Howard', '3': 'Alfred Mullins', '4': 'Jamie Rowe'} Length of dictionary values: {'Austin Little': 13, 'Natasha Howard': 14, 'Alfred Mullins': 14, 'Jamie Rowe': 10}

#### **31.** Write a Python program to convert a given dictionary into a list of lists.  Original Dictionary: {1: 'red', 2: 'green', 3: 'black', 4: 'white', 5: 'black'} Convert the said dictionary into a list of lists: [[1, 'red'], [2, 'green'], [3, 'black'], [4, 'white'], [5, 'black']] Original Dictionary: {'1': 'Austin Little', '2': 'Natasha Howard', '3': 'Alfred Mullins', '4': 'Jamie Rowe'} Convert the said dictionary into a list of lists: [['1', 'Austin Little'], ['2', 'Natasha Howard'], ['3', 'Alfred Mullins'], ['4', 'Jamie Rowe']]

#### **32.** Write a Python program to filter even numbers from a given dictionary values.  Original Dictionary: {'V': [1, 4, 6, 10], 'VI': [1, 4, 12], 'VII': [1, 3, 8]} Filter even numbers from said dictionary values: {'V': [4, 6, 10], 'VI': [4, 12], 'VII': [8]} Original Dictionary: {'V': [1, 3, 5], 'VI': [1, 5], 'VII': [2, 7, 9]} Filter even numbers from said dictionary values: {'V': [], 'VI': [], 'VII': [2]}

#### 33. Write a Python program to count the frequency in a given dictionary.  Original Dictionary: {'V': 10, 'VI': 10, 'VII': 40, 'VIII': 20, 'IX': 70, 'X': 80, 'XI': 40, 'XII': 20} Count the frequency of the said dictionary: Counter({10: 2, 40: 2, 20: 2, 70: 1, 80: 1})