

## Assignment 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}
```

2. 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  
  
            }  
  
        }  
  
    }  
  
}
```

#### 4. Initialize dictionary with default values

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

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

#### 5. 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}
```

#### 6. 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}
```

7. 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"  
  
}
```

8. Get the key corresponding to the minimum value from the following dictionary

```
sampleDict = {  
  
    'Physics': 82,  
  
    'Math': 65,  
  
    'history': 75  
  
}
```

Expected output:

Math

9. Write code to flip a dictionary — that is, to exchange its keys and values.  
10. Create a database in the following format

Values	=	Router1	1.1.1.1	zframez		zframez
Keys	=	(name)	(IP)	(username)	(pwd)	

11. Write a python program to print the value of a given key
12. Write a python program to check whether the given key is present, if present print the value , else add a new key and value
13. 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

14. Write a python program to find status of a given interface
15. Write a python program to find interface and IP of all interfaces which are up
16. Write a python program to count how many ethernet interfaces are there
17. Write a python program to add a new entry to above database
18. 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 v

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. [Go to the editor](#)

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. [Go to the editor](#)

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. [Go to the editor](#)

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})
```