

Python assignment – 2

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COURSE – B.TECH (C.S)

UNI. ROLL NO. – 2215001060

CLASS ROLL NO.- (M2-44)

Question-1: (ANS) **(B)** 1.

Question-2: (ANS) **(A)** Key error.

Question-3: (ANS) **(C)** 3.

Question-4: (ANS) **(D)** 4.

Question-5: (ANS) **(D)** 6.

Question-6: (ANS) **(B)** 30.

{ (1,2) : 12 , (4,2,1) : 10 , (1,2,4) , 8 }

Question-7: (ANS) **(D)** Type error.

Question-8: (ANS) **(A)** 96 98 97 .

Question-9: (ANS) **(B)** False.

Question-10: (ANS) **(A)** True.

The screenshot shows two windows from the Python IDLE interface. The top window is an editor titled "assignment.py" containing Python code. The bottom window is a shell window titled "IDLE Shell 3.11.3" showing the execution of the code.

assignment.py

```
File Edit Format Run Options Window Help
#1. sort dictionary by value Ascending

d = {'one': 1, 'three': 3, 'five': 5, 'two': 2, 'four': 4}
a = sorted(d.items(), key=lambda x: x[1])
print(a)

#2. Sort dictionary by value descending

d = {'one': 1, 'three': 3, 'five': 5, 'two': 2, 'four': 4}
a = sorted(d.items(), key=lambda x: x[1], reverse=True)
print(a)
```

IDLE Shell 3.11.3

```
File Edit Shell Debug Options Window Help
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr 4 2023, 23:49:59) [MSC v.1934 64 b
it (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment
.py
[('one', 1), ('two', 2), ('three', 3), ('four', 4), ('five', 5)]
[('five', 5), ('four', 4), ('three', 3), ('two', 2), ('one', 1)]
>>> |
```

Ln: 7 Col: 0

assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment....

```
File Edit Format Run Options Window Help
mayank={1:111, 2:5}
bhola={3:40, 4:56}
kunal={5:60, 6:80}
nishad= {}
for d in (mayank,bhola,kunal):nishad.update(d)
print(nishad)
```

IDLE Shell 3.11.3

```
File Edit Shell Debug Options Window Help
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr 4 2023, 23:49:59) [MSC v.1934 64
bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py
{1: 111, 2: 5, 3: 40, 4: 56, 5: 60, 6: 80}
>>> |
```

assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.p... ━ ━ X

File Edit Format Run Options Window Help

```
#4. Write a Python script to check if a given key already exists in a dictionary

def checkKey(dic, key):
    if key in dic.keys():
        print("Present, ", end = " ")
        print("value =", dic[key])
    else:
        print("Not present")
dic = {'a': 100, 'b':200, 'c':300}
key = 'b'
checkKey(dic, key)

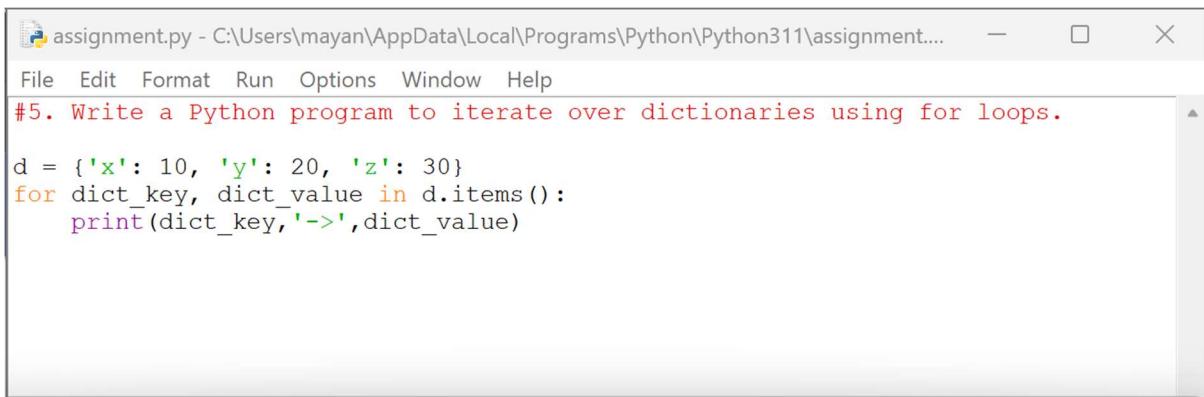
key = 'w'
checkKey(dic, key)
```

IDLE Shell 3.11.3 ━ ━ X

File Edit Shell Debug Options Window Help

Python 3.11.3 (tags/v3.11.3:f3909b8, Apr 4 2023, 23:49:59) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

```
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py
Present, value = 200
Not present
>>>
```

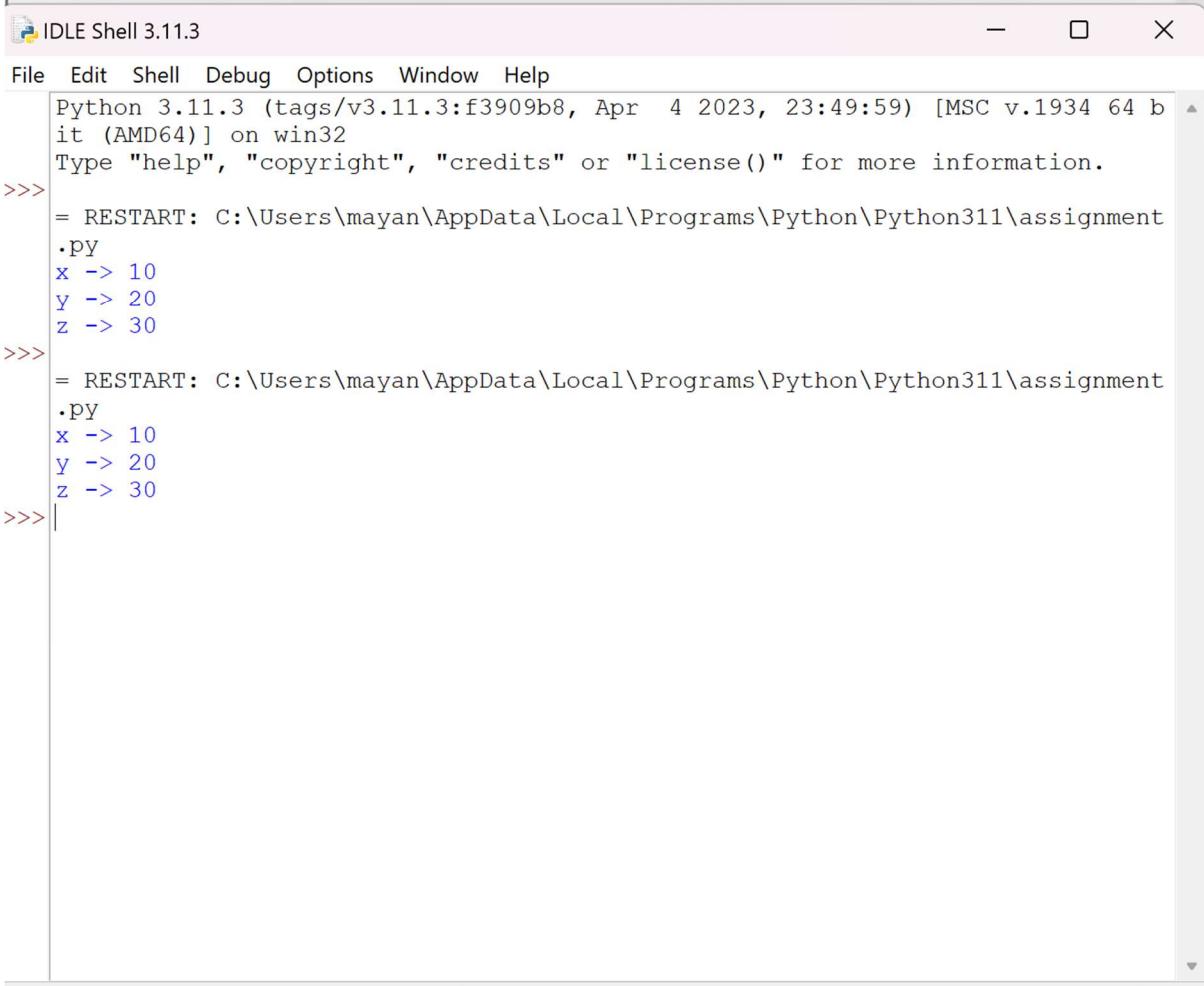


assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment....

File Edit Format Run Options Window Help

```
#5. Write a Python program to iterate over dictionaries using for loops.

d = {'x': 10, 'y': 20, 'z': 30}
for dict_key, dict_value in d.items():
    print(dict_key,'->',dict_value)
```



IDLE Shell 3.11.3

File Edit Shell Debug Options Window Help

```
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr  4 2023, 23:49:59) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
```

>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py

x -> 10
y -> 20
z -> 30

>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py

x -> 10
y -> 20
z -> 30

>>> |

The screenshot shows a window titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". The menu bar includes File, Edit, Format, Run, Options, Window, and Help. A note at the top reads "#6. Write a Python script to generate and print a dictionary that contains a number #(between 1 and n) in the form (x, x*x)". The code below is a Python script:

```
n=int(input("Input a number "))
d = dict()
for x in range(1,n+1):
    d[x]=x*x
print(d)
```

The screenshot shows a window titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". The menu bar includes File, Edit, Format, Run, Options, Window, and Help. A red comment at the top reads "#7. Write a Python script to print a dictionary where the keys are numbers between 1 and 15 (both included) and the values are square of keys." Below is the Python code:

```
d=dict()
for z in range(0,15):
    d[z]=z**2
print(d)
```

The screenshot shows a window titled "IDLE Shell 3.11.3". The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. It displays the Python version and copyright information. The shell history shows the command "assignment.py" being run, which outputs a dictionary of squares from 0 to 14.

```
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr 4 2023, 23:49:59) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py
{0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100, 11: 121, 12: 144, 13: 169, 14: 196}
>>>
```

assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3) — X

File Edit Format Run Options Window Help

```
#7. Write a Python script to print a dictionary where the keys are numbers between 1 and 15 (both included) and the values are square of keys.
```

```
d=dict()
for z in range(0,15):
    d[z]=z**2
print(d)
```

IDLE Shell 3.11.3

File Edit Shell Debug Options Window Help

```
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr 4 2023, 23:49:59) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
```

```
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py
{0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100, 11: 121, 12: 144, 13: 169, 14: 196}
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py =
{0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100, 11: 121, 12: 144, 13: 169, 14: 196}
>>>
```

Ln: 9 Col: 0

The image shows a Windows desktop environment with two open windows related to Python development.

The top window is titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains the following Python code:

```
# 8. Write a Python script to merge two Python dictionaries.  
dict_1 = {1: 'a', 2: 'b'}  
dict_2 = {2: 'c', 4: 'd'}  
print(dict_1 | dict_2)
```

The bottom window is titled "IDLE Shell 3.11.3". It displays the Python interpreter's welcome message and a command-line session:

```
File Edit Shell Debug Options Window Help  
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr 4 2023, 23:49:59) [MSC v.1934 64 bit (A  
MD64)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
= RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py  
{1: 'a', 2: 'c', 4: 'd'}  
>>>|
```

The image shows a Windows desktop with two open windows. The top window is a code editor titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains Python code to iterate over a dictionary. The bottom window is the "IDLE Shell 3.11.3" window, which shows the execution of the script and its output.

```
# 9. Write a Python program to iterate over dictionaries using for loops.

d = {'Red': 1, 'Green': 2, 'Blue': 3}
for color_key, value in d.items():
    print(color_key, 'corresponds to ', d[color_key])
```

```
IDLE Shell 3.11.3
File Edit Shell Debug Options Window Help
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr  4 2023, 23:49:59) [MSC v.1934 64 bit (AM
D64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py
Red corresponds to 1
Green corresponds to 2
Blue corresponds to 3
>>> |
```

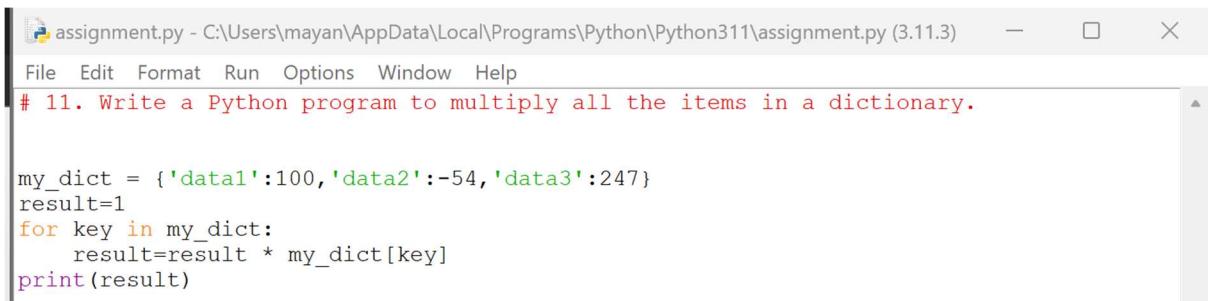
The image shows a desktop environment with two windows open. The top window is a code editor titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains the following Python code:

```
# 10. Write a Python program to sum all the items in a dictionary.  
my_dict = {'data1':500,'data2':-34,'data3':455}  
print(sum(my_dict.values()))
```

The bottom window is the "IDLE Shell 3.11.3" window. It displays the Python interpreter's welcome message and a command-line interface:

```
File Edit Shell Debug Options Window Help  
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr 4 2023, 23:49:59) [MSC v.1934 64 bit (A  
MD64)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
= RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py  
921  
>>> |
```

In the bottom right corner of the IDLE shell window, there is a status bar with the text "Ln: 6 Col: 0".

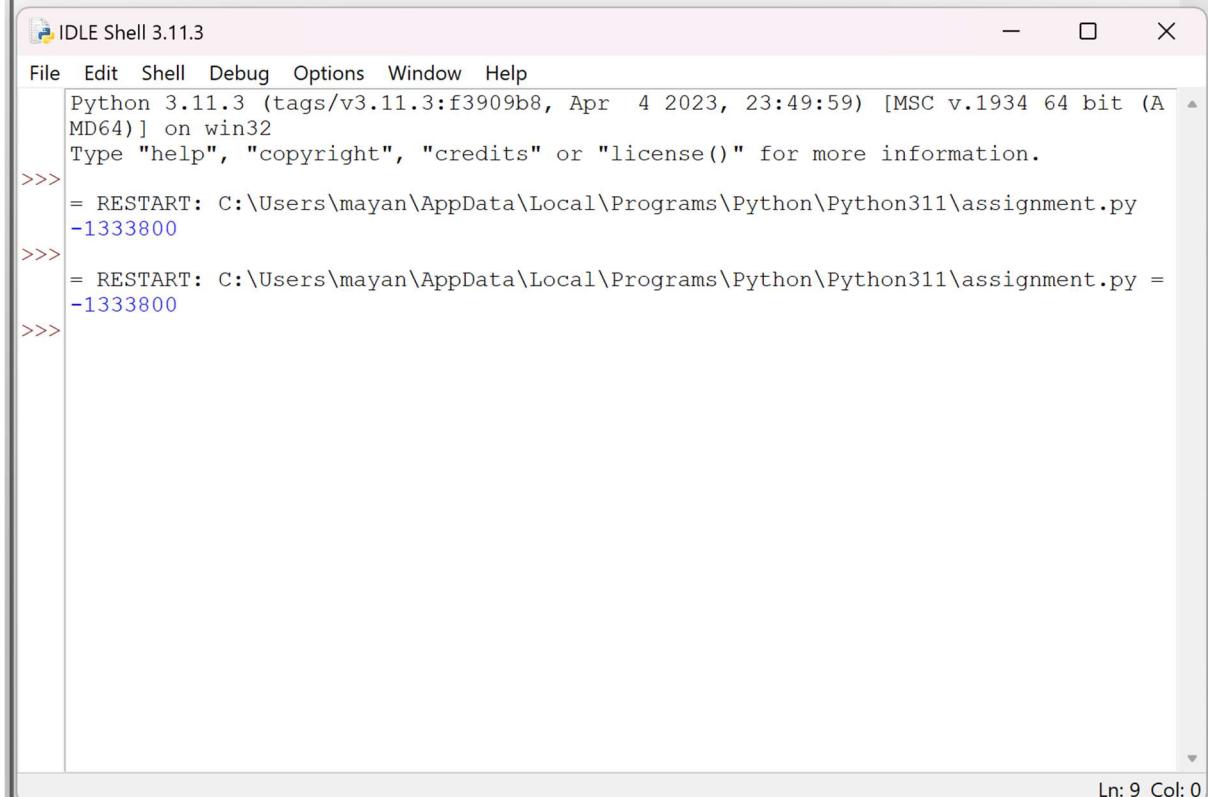


assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3) — X

File Edit Format Run Options Window Help

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

```
my_dict = {'data1':100,'data2':-54,'data3':247}
result=1
for key in my_dict:
    result=result * my_dict[key]
print(result)
```



IDLE Shell 3.11.3

File Edit Shell Debug Options Window Help

```
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr  4 2023, 23:49:59) [MSC v.1934 64 bit (A
MD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
```

```
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py
-1333800
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py =
-1333800
>>>
```

Ln: 9 Col: 0

The image shows a Windows desktop with two open windows related to Python 3.11.3.

The top window is titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains the following Python code:

```
# 12. Write a Python program to remove a key from a dictionary.

myDict = {'a':1,'b':2,'c':3,'d':4}
print(myDict)
if 'a' in myDict:
    del myDict['a']
print(myDict)
```

The bottom window is titled "IDLE Shell 3.11.3". It displays the Python shell interface with the following history:

```
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py = -1333800
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py = -1333800
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py =
{'a': 1, 'b': 2, 'c': 3, 'd': 4}
{'b': 2, 'c': 3, 'd': 4}
```

The status bar at the bottom of the IDLE window indicates "Ln: 13 Col: 0".

The image shows two windows from a Python development environment. The top window is a code editor titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains the following Python code:

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

keys = ['red', 'green', 'blue']
values = ['#FF0000', '#008000', '#0000FF']
color_dictionary = dict(zip(keys, values))
print(color_dictionary)
```

The bottom window is the "IDLE Shell 3.11.3" window. It displays the Python interpreter's command-line interface. The session starts with the Python version information:

```
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr  4 2023, 23:49:59) [MSC v.1934 64 bit (A
MD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
```

Then, it shows several restarts of the script, each time mapping different keys to values:

```
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py =
-1333800
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py =
-1333800
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py =
{'a': 1, 'b': 2, 'c': 3, 'd': 4}
{'b': 2, 'c': 3, 'd': 4}
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py =
{'red': '#FF0000', 'green': '#008000', 'blue': '#0000FF'}
>>> |
```

The status bar at the bottom right of the shell window indicates "Ln: 16 Col: 0".

The image shows two windows side-by-side. The left window is a code editor titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains the following Python code:

```
# 14. Write a Python program to sort a dictionary by key

color_dict = {'red': '#FF0000',
              'green': '#008000',
              'black': '#000000',
              'white': '#FFFFFF'}

for key in sorted(color_dict):
    print("%s: %s" % (key, color_dict[key]))
```

The right window is the "IDLE Shell 3.11.3" window. It shows the Python interpreter's command-line interface. The session starts with the Python version information:

```
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr  4 2023, 23:49:59) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
```

Then it shows several restarts of the script, each time printing the sorted dictionary:

```
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py = 1333800
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py = 1333800
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py = {'a': 1, 'b': 2, 'c': 3, 'd': 4}
{'b': 2, 'c': 3, 'd': 4}
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py = {'red': '#FF0000', 'green': '#008000', 'blue': '#0000FF'}
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py = black: #000000
green: #008000
red: #FF0000
white: #FFFFFF
>>> |
```

In the bottom right corner of the IDLE shell window, the text "Ln: 22 Col: 0" is visible.

The image shows two windows side-by-side. The left window is a code editor titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains the following Python code:

```
# 14. Write a Python program to sort a dictionary by key

my_dict = {'x':500, 'y':5874, 'z': 560}

key_max = max(my_dict.keys(), key=(lambda k: my_dict[k]))
key_min = min(my_dict.keys(), key=(lambda k: my_dict[k]))

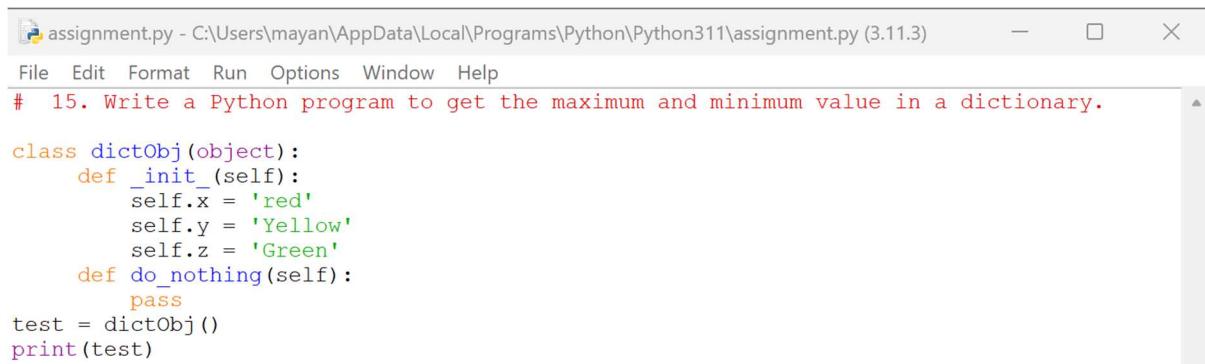
print('Maximum Value: ',my_dict[key_max])
print('Minimum Value: ',my_dict[key_min])
```

The right window is the "IDLE Shell 3.11.3" window, which displays the output of running the script. It shows the Python version, copyright information, and the results of the print statements.

```
File Edit Shell Debug Options Window Help
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr 4 2023, 23:49:59) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py = -1333800
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py = -1333800
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py = {'a': 1, 'b': 2, 'c': 3, 'd': 4}
{'b': 2, 'c': 3, 'd': 4}
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py = {'red': '#FF0000', 'green': '#008000', 'blue': '#0000FF'}
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py = black: #000000
green: #008000
red: #FF0000
white: #FFFFFF
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ==
Maximum Value: 5874
Minimum Value: 500
>>>
```

Ln: 26 Col: 0

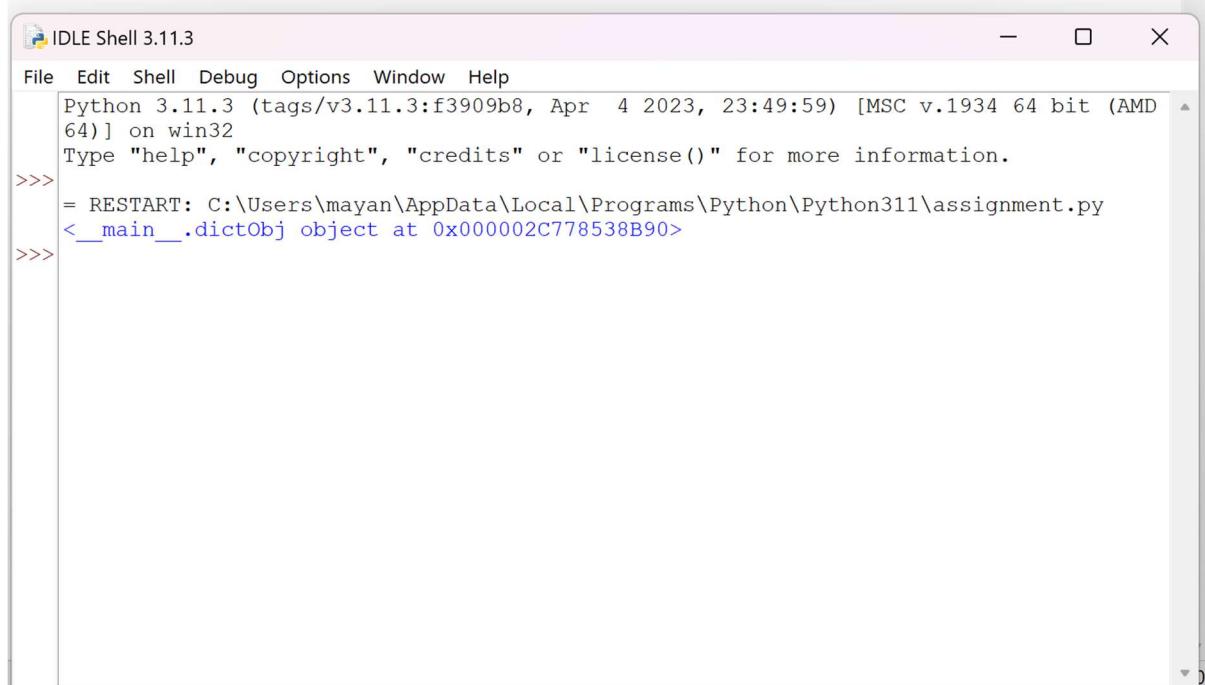


assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)

File Edit Format Run Options Window Help

```
# 15. Write a Python program to get the maximum and minimum value in a dictionary.

class dictObj(object):
    def __init__(self):
        self.x = 'red'
        self.y = 'Yellow'
        self.z = 'Green'
    def do_nothing(self):
        pass
test = dictObj()
print(test)
```



IDLE Shell 3.11.3

File Edit Shell Debug Options Window Help

```
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr  4 2023, 23:49:59) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py
<__main__.dictObj object at 0x000002C778538B90>
>>>
```

The screenshot shows two windows: a code editor and an IDLE shell.

Code Editor:

```
# 17. Write a Python program to remove duplicates from Dictionary

student_data = {'id1':
    {'name': ['Sara'],
     'class': ['V'],
     'subject_integration': ['english, math, science']},
   'id2':
    {'name': ['David'],
     'class': ['V'],
     'subject_integration': ['english, math, science']},
   'id3':
    {'name': ['Sara'],
     'class': ['V'],
     'subject_integration': ['english, math, science']},
   'id4':
    {'name': ['Surya'],
     'class': ['V'],
     'subject_integration': ['english, math, science']}
}

result = {}

for key,value in student_data.items():
    if value not in result.values():
        result[key] = value

print(result)
```

IDLE Shell:

```
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr  4 2023, 23:49:59) [MSC v.1934 64 bit (AMD64)]
] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py
{'id1': {'name': ['Sara'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id2': {'name': ['David'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id4': {'name': ['Surya'], 'class': ['V'], 'subject_integration': ['english, math, science']}}Ln: 9 Col: 0
```

The image shows a screenshot of a Windows desktop environment. At the top, there is a taskbar with several pinned icons. Below the taskbar, there are two windows open:

- assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)**: This is a code editor window. The title bar shows the file name and path. The menu bar includes File, Edit, Format, Run, Options, Window, and Help. The code itself is a single-line script:

```
# 18. Write a Python program to check a dictionary is empty or not
```

```
my_dict = {}

if not bool(my_dict):
    print("Dictionary is empty")
```
- IDLE Shell 3.11.3**: This is a terminal window. The title bar shows the application name and version. The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. The shell area displays the Python interpreter's welcome message and several command-line interactions:

```
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr  4 2023, 23:49:59) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
```

```
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py
{'id1': {'name': ['Sara'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id2': {'name': ['David'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id4': {'name': ['Surya'], 'class': ['V'], 'subject_integration': ['english, math, science']}}
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
{'id1': {'name': ['Sara'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id2': {'name': ['David'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id4': {'name': ['Surya'], 'class': ['V'], 'subject_integration': ['english, math, science']}}
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
Dictionary is empty
>>>
```

At the bottom right of the terminal window, it says "Ln: 12 Col: 0".

The image shows two windows side-by-side. The left window is a code editor titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains the following Python code:

```
# 19. Write a Python program to combine two dictionary adding values for common keys
from collections import Counter
d1 = {'a': 100, 'b': 200, 'c': 300}
d2 = {'a': 300, 'b': 200, 'd': 400}
d = Counter(d1) + Counter(d2)
print(d)
```

The right window is the "IDLE Shell 3.11.3" window. It shows the output of running the "assignment.py" script. The output is as follows:

```
File Edit Format Run Options Window Help
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr 4 2023, 23:49:59) [MSC v.1934 64 bit (AMD64)]
] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py
{'id1': {'name': ['Sara'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id2': {'name': ['David'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id4': {'name': ['Surya'], 'class': ['V'], 'subject_integration': ['english, math, science']}}

>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
{'id1': {'name': ['Sara'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id2': {'name': ['David'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id4': {'name': ['Surya'], 'class': ['V'], 'subject_integration': ['english, math, science']}}

>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
Dictionary is empty

>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
Counter({'a': 400, 'b': 400, 'd': 400, 'c': 300})
```

The image shows two windows from a Python IDE. The top window is titled 'assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)' and contains the following Python code:

```
# 20. Write a Python program to print all unique values in a dictionary
L = [{"V": "S001"}, {"V": "S002"}, {"VI": "S001"}, {"VI": "S005"}, {"VII": "S005"}, {"V": "S005"}]
print("Original List: ", L)
u_value = set( val for dic in L for val in dic.values())
print("Unique Values: ", u_value)
```

The bottom window is titled 'IDLE Shell 3.11.3' and shows the execution of the code. It displays the original list and the unique values found.

```
//= RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py
{'id1': {'name': ['Sara'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id2': {'name': ['David'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id4': {'name': ['Surya'], 'class': ['V'], 'subject_integration': ['english, math, science']}}

>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
{'id1': {'name': ['Sara'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id2': {'name': ['David'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id4': {'name': ['Surya'], 'class': ['V'], 'subject_integration': ['english, math, science']}}

>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
Dictionary is empty
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
Counter({'a': 400, 'b': 400, 'd': 400, 'c': 300})
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
Original List: [{"V": "S001"}, {"V": "S002"}, {"VI": "S001"}, {"VI": "S005"}, {"VII": "S005"}, {"V": "S009"}, {"VIII": "S007"}]
Unique Values: {'S001', 'S002', 'S005', 'S009', 'S007'}
```

Ln: 19 Col: 0

The image shows two windows from a Python development environment. The top window is a code editor titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains the following Python code:

```
# 21. Write a Python program to create and display all combinations of letters, selecting
#      each letter from a different key in a dictionary.

import itertools
d = {'1': ['a', 'b'], '2': ['c', 'd']}
for combo in itertools.product(*[d[k] for k in sorted(d.keys())]):
    print(''.join(combo))
```

The bottom window is the "IDLE Shell 3.11.3" window. It displays the following interactive session:

```
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
{'id1': {'name': ['Sara'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id2': {'name': ['David'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id4': {'name': ['Surya'], 'class': ['V'], 'subject_integration': ['english, math, science']}}
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
Dictionary is empty
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
Counter({'a': 400, 'b': 400, 'd': 400, 'c': 300})
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
Original List: [{V: 'S001'}, {V: 'S002'}, {VI: 'S001'}, {VI: 'S005'}, {VII: 'S005'}, {V: 'S009'}, {VIII: 'S007'}]
Unique Values:  {'S001', 'S002', 'S005', 'S009', 'S007'}
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
ac
ad
bc
bd
>>> |
```

The status bar at the bottom right of the shell window indicates "Ln: 25 Col: 0".

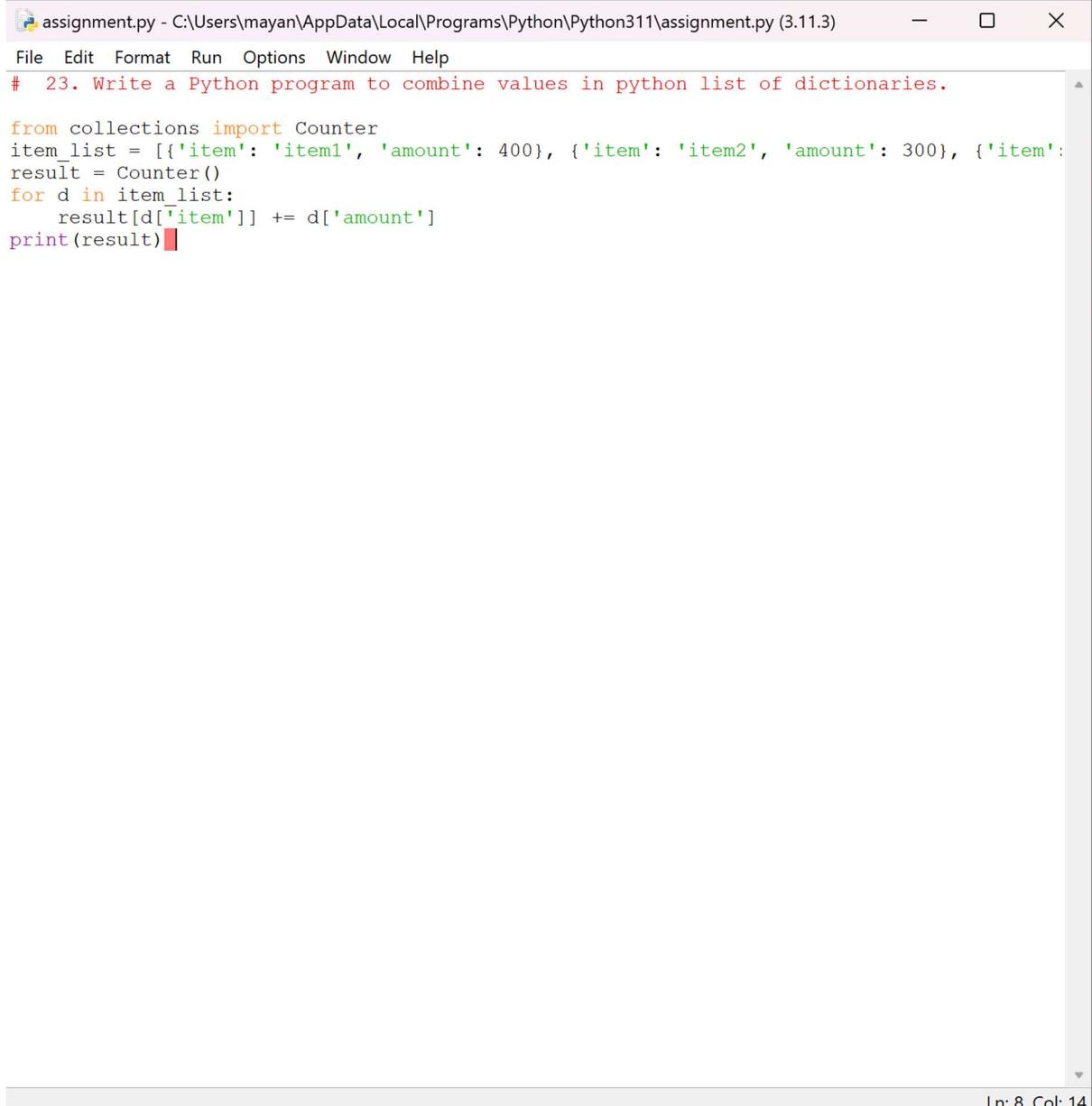
assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)

File Edit Format Run Options Window Help

```
# 22. Write a Python program to find the highest 3 values in a dictionary.

from heapq import nlargest
my_dict = {'a':500, 'b':5874, 'c': 560, 'd':400, 'e':5874, 'f': 20}
three_largest = nlargest(3, my_dict, key=my_dict.get)
print(three_largest)
```

Ln: 3 Col: 19



A screenshot of a Python code editor window titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". The window includes standard operating system controls (minimize, maximize, close) at the top right. A menu bar at the top provides options: File, Edit, Format, Run, Options, Window, Help. Below the menu is a comment line: "# 23. Write a Python program to combine values in python list of dictionaries." The main code area contains the following Python script:

```
from collections import Counter
item_list = [{'item': 'item1', 'amount': 400}, {'item': 'item2', 'amount': 300}, {'item': 'item3', 'amount': 200}]
result = Counter()
for d in item_list:
    result[d['item']] += d['amount']
print(result)
```

Ln: 8 Col: 14

```
# 24. Write a Python program to combine values in python list of dictionaries.

from collections import defaultdict, Counter
str1 = 'w3resource'
my_dict = {}
for letter in str1:
    my_dict[letter] = my_dict.get(letter, 0) + 1
print(my_dict)
```

```
>>> print([{"name": "David", "class": "V", "subject_integration": "English"}, {"name": "Surya", "class": "V", "subject_integration": "math, science"}], "id4": {"name": ["Surya"], "class": ["V"], "subject_integration": ["english, math, science"]})
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
Dictionary is empty
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
Counter({'a': 400, 'b': 400, 'd': 400, 'c': 300})
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
Original List: [{"V": "S001"}, {"V": "S002"}, {"VI": "S001"}, {"VI": "S005"}, {"VII": "S005"}, {"V": "S009"}, {"VIII": "S007"}]
Unique Values: {"S001", "S002", "S005", "S009", "S007"}
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
ac
ad
bc
bd
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
{'w': 1, '3': 1, 'r': 2, 'e': 2, 's': 1, 'o': 1, 'u': 1, 'c': 1}
>>>
```

The image shows two windows from a Python development environment. The top window is a code editor titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains the following Python code:

```
# 25. Write a Python program to print a dictionary in table format.

my_dict = {'C1':[1,2,3], 'C2':[5,6,7], 'C3':[9,10,11]}
for row in zip(*([key] + (value) for key, value in sorted(my_dict.items()))):
    print(*row)
```

The bottom window is the "IDLE Shell 3.11.3" window. It shows the execution of the "assignment.py" script. The output is as follows:

```
Unique Values:  {'S001', 'S002', 'S005', 'S009', 'S007'}
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
ac
ad
bc
bd
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
{'w': 1, '3': 1, 'r': 2, 'e': 2, 's': 1, 'o': 1, 'u': 1, 'c': 1}
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
C1 C2 C3
1 5 9
2 6 10
3 7 11
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
C1 C2 C3
1 5 9
2 6 10
3 7 11
>>> |
```

The status bar at the bottom right of the shell window indicates "Ln: 40 Col: 0".

assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3) — X

File Edit Format Run Options Window Help

```
# 26. Write a Python program to count the values associated with key in a dictionary.

student = [{"id": 1, "success": True, "name": "Lary"},  
           {"id": 2, "success": False, "name": "Rabi"},  
           {"id": 3, "success": True, "name": "Alex"}]  
print(sum(d["id"] for d in student))  
print(sum(d["success"] for d in student))
```

Ln: 1 Col: 87

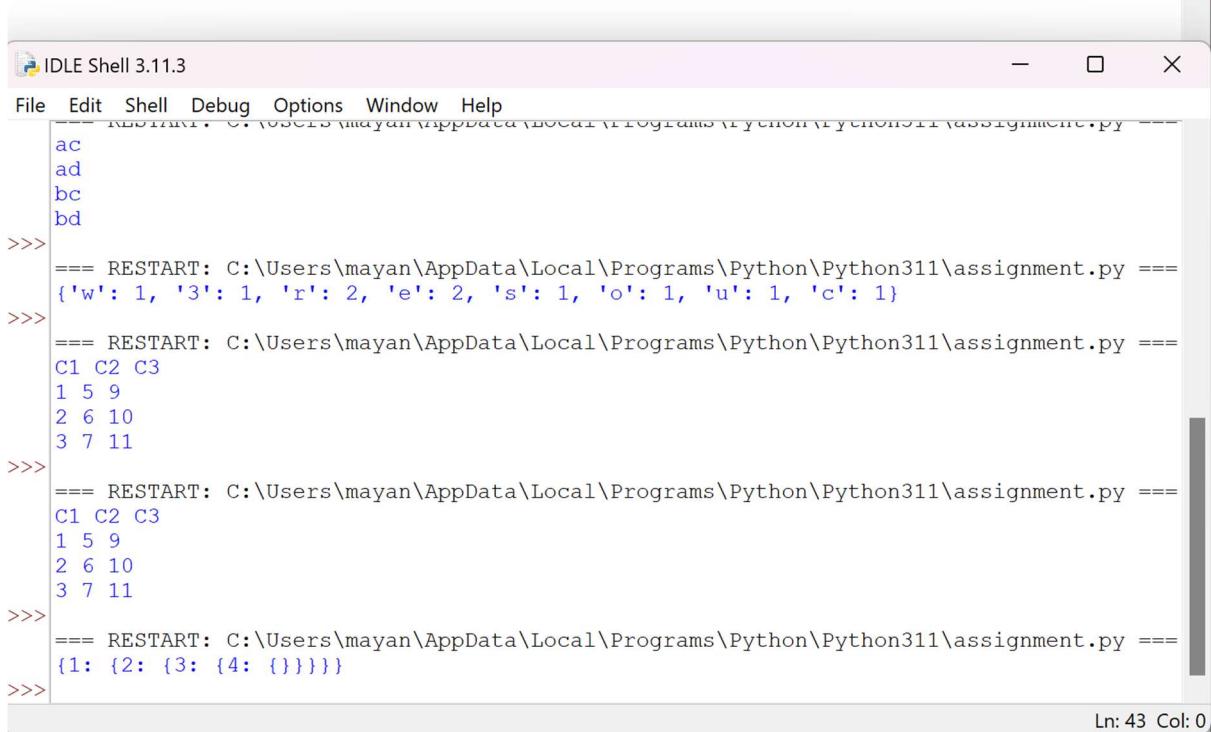


assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)

File Edit Format Run Options Window Help

```
# 27. Write a Python program to convert a list into a nested dictionary of keys.

num_list = [1, 2, 3, 4]
new_dict = current = {}
for name in num_list:
    current[name] = {}
    current = current[name]
print(new_dict)
```



IDLE Shell 3.11.3

File Edit Shell Debug Options Window Help

```
--= RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py --=
ac
ad
bc
bd
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
{'w': 1, '3': 1, 'r': 2, 'e': 2, 's': 1, 'o': 1, 'u': 1, 'c': 1}
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
C1 C2 C3
1 5 9
2 6 10
3 7 11
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
C1 C2 C3
1 5 9
2 6 10
3 7 11
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
{1: {2: {3: {4: {}}}}}
```

Ln: 43 Col: 0

The image shows two windows from the Python IDE. The top window is titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains the following Python code:

```
# 28. Write a Python program to sort a list alphabetically in a dictionary
num = {'n1': [2, 3, 1], 'n2': [5, 1, 2], 'n3': [3, 2, 4]}
sorted_dict = {x: sorted(y) for x, y in num.items()}
print(sorted_dict)
```

The bottom window is titled "IDLE Shell 3.11.3". It shows the execution of the program. The user enters "bd" to start a debugger, then runs the script multiple times with different inputs. The output shows the sorted lists for each input:

```
>>> bd
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ====
{'w': 1, '3': 1, 'r': 2, 'e': 2, 's': 1, 'o': 1, 'u': 1, 'c': 1}
>>>
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ====
C1 C2 C3
1 5 9
2 6 10
3 7 11
>>>
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ====
C1 C2 C3
1 5 9
2 6 10
3 7 11
>>>
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ====
{1: {2: {3: {4: {}}}}}
>>>
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ====
{'n1': [1, 2, 3], 'n2': [1, 2, 5], 'n3': [2, 3, 4]}
```

The status bar at the bottom right of the shell window indicates "Ln: 46 Col: 0".

The image shows two windows from the Python IDLE environment. The top window is a code editor titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains the following Python code:

```
# 29. Write a Python program to remove spaces from dictionary keys.  
Product_list = {'P 01' : 'DBMS', 'P 02' : 'OS',  
                'P 03' : 'Soft Computing'}  
Product_list = {x.translate({32:None}) : y  
               for x, y in Product_list.items()}  
print (" New dictionary : ", Product_list)
```

The bottom window is the "IDLE Shell 3.11.3" window, which displays the execution of the script. The output shows the original dictionary and the modified dictionary where all spaces have been removed from the keys.

```
-- RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py --  
'w': 1, '3': 1, 'r': 2, 'e': 2, 's': 1, 'o': 1, 'u': 1, 'c': 1  
>>>  
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ====  
C1 C2 C3  
1 5 9  
2 6 10  

```

The screenshot shows a window titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". The menu bar includes File, Edit, Format, Run, Options, Window, and Help. The code in the editor is as follows:

```
# 30. Write a Python program to get the top three items in a shop

my_dict = {'A': 67, 'B': 23, 'C': 45,
           'D': 56, 'E': 12, 'F': 69}

k = Counter(my_dict)
high = k.most_common(3)
print("Initial Dictionary:")
print(my_dict, "\n")
print("Dictionary with 3 highest values:")
print("Keys: Values")
for i in high:
    print(i[0], ":", i[1], " ")
```

The status bar at the bottom right indicates "Ln: 12 Col: 14".

The image shows two windows from a Python development environment. The top window is a code editor titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains the following Python code:

```
# 31. Write a Python program to get the key, value and item in a dictionary.

test_dict = {"Geeks": 1, "for": 2, "geeks": 3}
print("Original dictionary is : " + str(test_dict))
print("Dict key-value are : ")
for i in test_dict:
    print(i, test_dict[i])
```

The bottom window is the "IDLE Shell 3.11.3" window. It shows the Python interpreter's prompt (">>>>") and the execution of the script. The output is:

```
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr  4 2023, 23:49:59) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>>
= RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py
Original dictionary is : {'Geeks': 1, 'for': 2, 'geeks': 3}
Dict key-value are :
Geeks 1
for 2
geeks 3
>>>
===== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py =====
Original dictionary is : {'Geeks': 1, 'for': 2, 'geeks': 3}
Dict key-value are :
Geeks 1
for 2
geeks 3
>>>
```

In the bottom right corner of the shell window, it says "Ln: 17 Col: 0".

The image shows two windows from a Python development environment. The top window is a code editor titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains the following Python code:

```
# 32. Write a Python program to print a dictionary line by line

students = {'Aex':{'class':'V',
                   'rolld_id':2},
            'Puja':{'class':'V',
                     'roll_id':3}}
for a in students:
    print(a)
    for b in students[a]:
        print (b,':',students[a][b])
```

The bottom window is the "IDLE Shell 3.11.3" window. It shows the execution of the script and its output:

```
Type "help", "copyright", "credits" or "license()" for more information.
>>> = RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py
Original dictionary is : {'Geeks': 1, 'for': 2, 'geeks': 3}
Dict key-value are :
Geeks 1
for 2
geeks 3
>>> ===== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py =====
Original dictionary is : {'Geeks': 1, 'for': 2, 'geeks': 3}
Dict key-value are :
Geeks 1
for 2
geeks 3
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ==
Aex
class : V
rolld_id : 2
Puja
class : V
roll_id : 3
>>> |
```

The status bar at the bottom right of the shell window indicates "Ln: 25 Col: 0".

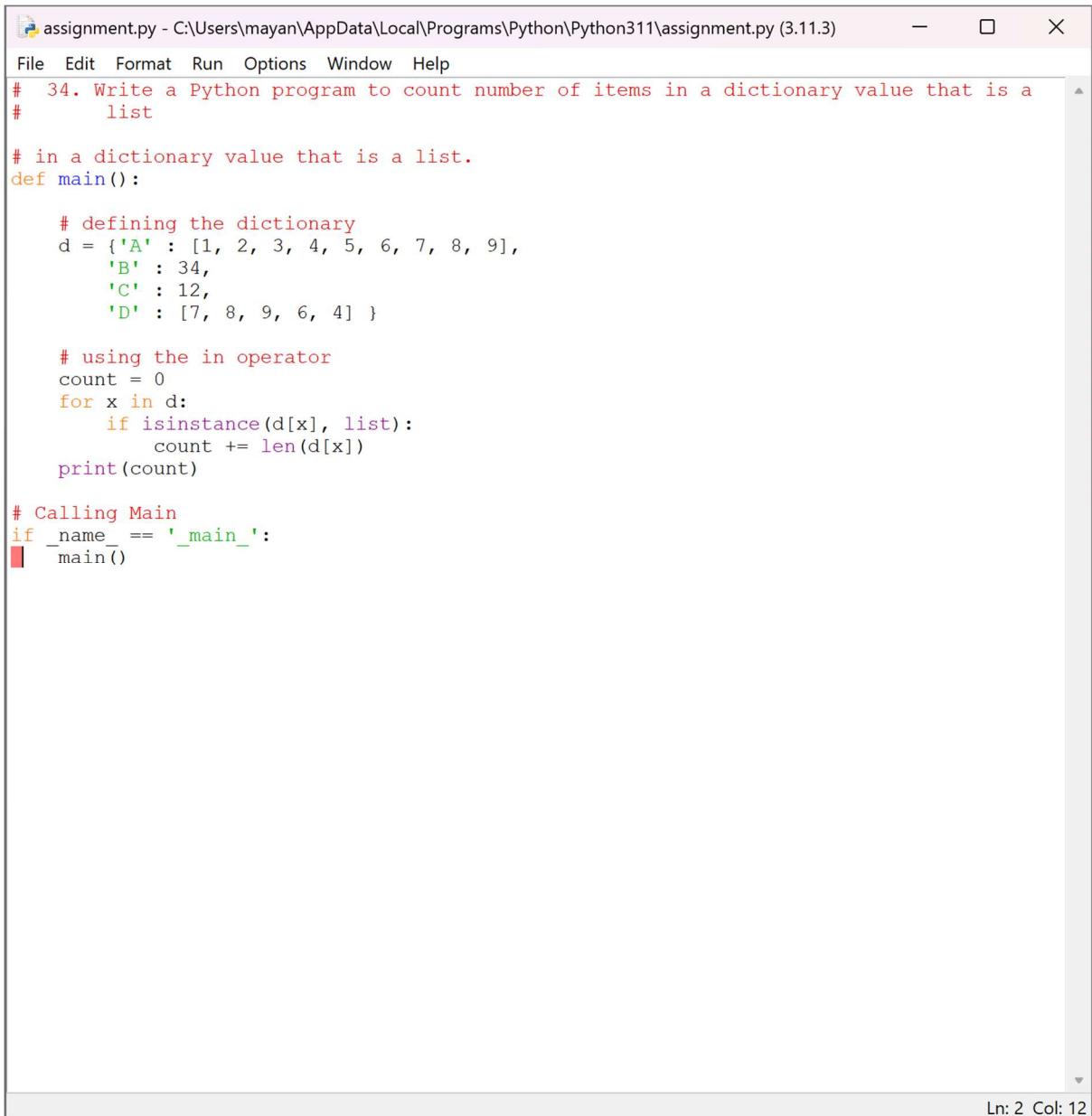
assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3) — X

File Edit Format Run Options Window Help

```
# 33. Write a Python program to check multiple keys exists in a dictionary

student = {
    'name': 'Alex',
    'class': 'V',
    'roll_id': '2'
}
print(student.keys() >= {'class', 'name'})
print(student.keys() >= {'name', 'Alex'})
print(student.keys() >= {'roll_id', 'name'})
```

Ln: 1 Col: 3



A screenshot of a Python code editor window titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". The window includes standard menu options: File, Edit, Format, Run, Options, Window, Help. The code itself is a solution to problem 34, which asks to count the number of items in a dictionary value that is a list. The code defines a dictionary 'd' where values are lists, and then uses a for loop with the 'in' operator to count the total number of items across all list values. It also includes a main() function and a check at the bottom for execution.

```
# 34. Write a Python program to count number of items in a dictionary value that is a
#       list

# in a dictionary value that is a list.
def main():

    # defining the dictionary
    d = {'A' : [1, 2, 3, 4, 5, 6, 7, 8, 9],
          'B' : 34,
          'C' : 12,
          'D' : [7, 8, 9, 6, 4] }

    # using the in operator
    count = 0
    for x in d:
        if isinstance(d[x], list):
            count += len(d[x])
    print(count)

# Calling Main
if __name__ == '__main__':
    main()
```

Ln: 2 Col: 12

The image shows two windows from a Python IDE. The top window is titled 'assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)' and contains the following Python code:

```
# 35. Write a Python program to sort Counter by value.

from collections import Counter
x = Counter({'Math':81, 'Physics':83, 'Chemistry':87})
print(x.most_common())
```

The bottom window is titled 'IDLE Shell 3.11.3' and shows the execution of the code. It displays the original dictionary, the sorted key-value pairs, and three separate runs of the code with different data sets.

```
Original dictionary is : {'Geeks': 1, 'for': 2, 'geeks': 3}
Dict key-value are :
Geeks 1
for 2
geeks 3
>>> ===== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py =====
Original dictionary is : {'Geeks': 1, 'for': 2, 'geeks': 3}
Dict key-value are :
Geeks 1
for 2
geeks 3
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ==
Aex
class : V
rolld_id : 2
Puja
class : V
roll_id : 3
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ==
[('Chemistry', 87), ('Physics', 83), ('Math', 81)]
>>>
```

Ln: 28 Col: 0

assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)

```
# 36. Write a Python program to create a dictionary from two lists without losing duplicate values.

from collections import defaultdict
class_list = ['Class-V', 'Class-VI', 'Class-VII', 'Class-VIII']
id_list = [1, 2, 2, 3]
temp = defaultdict(set)
for c, i in zip(class_list, id_list):
    temp[c].add(i)
print(temp)
```

IDLE Shell 3.11.3

```
File Edit Shell Debug Options Window Help
```

```
Original dictionary is : {'Geeks': 1, 'for': 2, 'geeks': 3}
Dict key-value are :
Geeks 1
for 2
geeks 3
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ==
Aex
class : V
roll_id : 2
Puja
class : V
roll_id : 3
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ==
[('Chemistry', 87), ('Physics', 83), ('Math', 81)]
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ==
defaultdict(<class 'set'>, {'Class-V': {1}, 'Class-VI': {2}, 'Class-VII': {2}, 'Class-VIII': {3}})
>>> === RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ==
defaultdict(<class 'set'>, {'Class-V': {1}, 'Class-VI': {2}, 'Class-VII': {2}, 'Class-VIII': {3}})
>>> |
```

Ln: 34 Col: 0

The screenshot shows two windows from the Python IDLE interface. The top window is a code editor titled "assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)". It contains the following Python code:

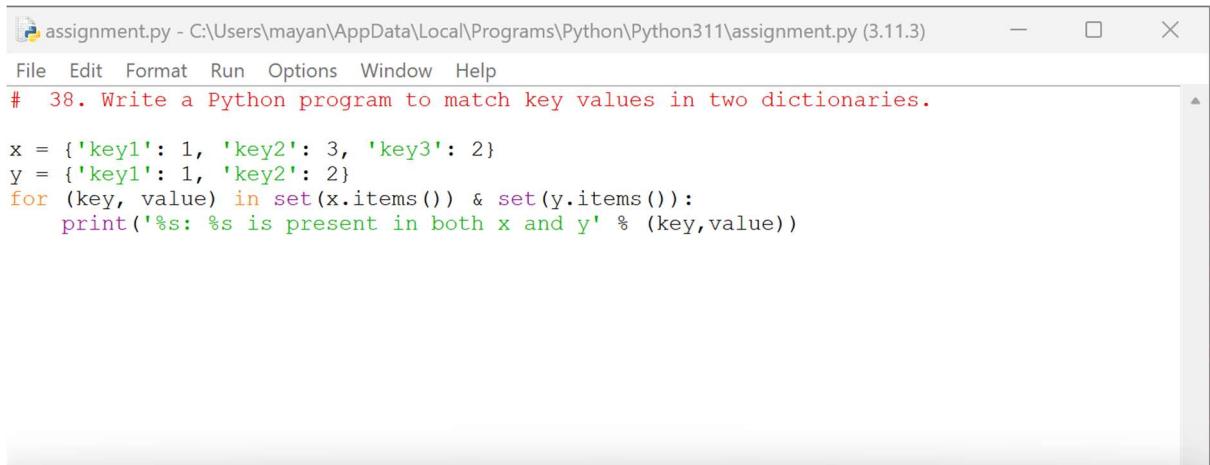
```
# 37. Write a Python program to replace dictionary values with their sum

def sum_math_v_vi_average(list_of_dicts):
    for d in list_of_dicts:
        n1 = d.pop('V')
        n2 = d.pop('VI')
        d['V+VI'] = (n1 + n2)/2
    return list_of_dicts
student_details= [
    {'id' : 1, 'subject' : 'math', 'V' : 70, 'VI' : 82},
    {'id' : 2, 'subject' : 'math', 'V' : 73, 'VI' : 74},
    {'id' : 3, 'subject' : 'math', 'V' : 75, 'VI' : 86}
]
print(sum_math_v_vi_average(student_details))
```

The bottom window is the "IDLE Shell 3.11.3" window, which displays the execution of the code. The output shows the original student details and the modified list where the average of V and VI has been calculated and stored under the key 'V+VI'.

```
File Edit Format Run Options Window Help
File Edit Shell Debug Options Window Help
>>> geeks 3
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
Aex
class : V
rolld_id : 2
Puja
class : V
roll_id : 3
>>>
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
[('Chemistry', 87), ('Physics', 83), ('Math', 81)]
>>>
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
defaultdict(<class 'set'>, {'Class-V': {1}, 'Class-VI': {2}, 'Class-VII': {2}, 'Class-VIII': {3}})
>>>
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
defaultdict(<class 'set'>, {'Class-V': {1}, 'Class-VI': {2}, 'Class-VII': {2}, 'Class-VIII': {3}})
>>>
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
[{'id': 1, 'subject': 'math', 'V+VI': 76.0}, {'id': 2, 'subject': 'math', 'V+VI': 73.5}, {'id': 3, 'subject': 'math', 'V+VI': 80.5}]
```

p

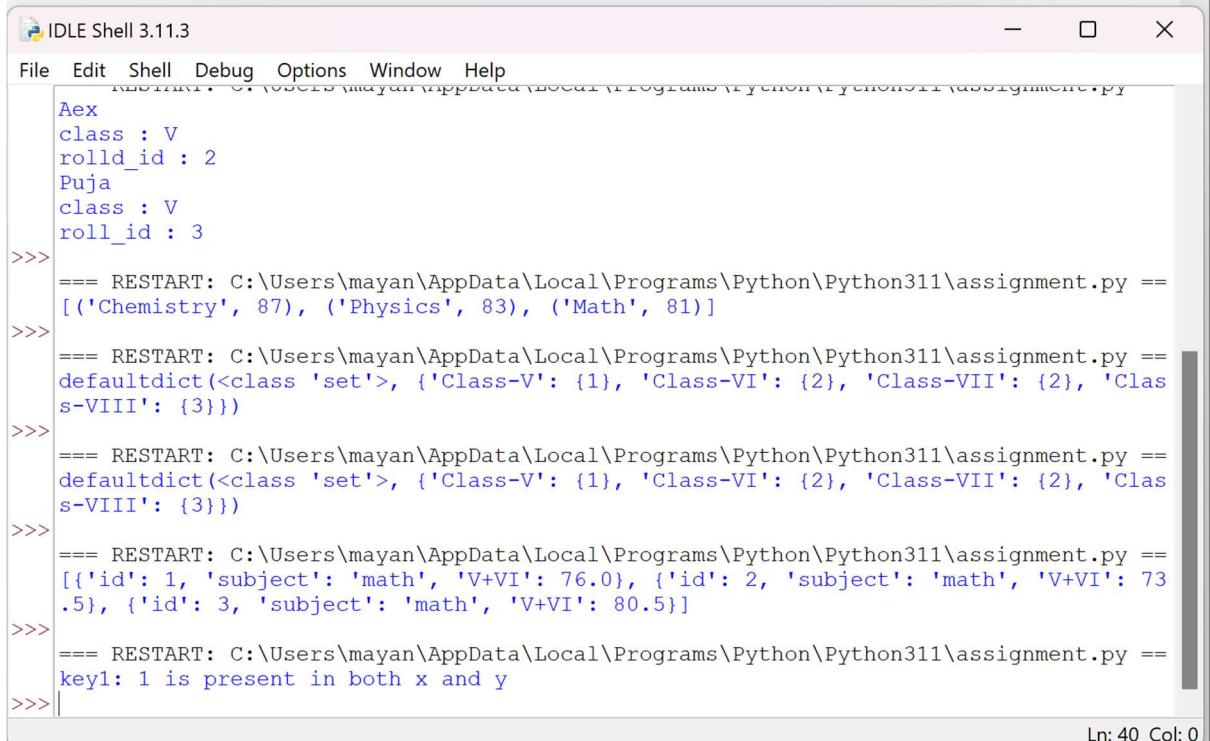


assignment.py - C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py (3.11.3)

File Edit Format Run Options Window Help

```
# 38. Write a Python program to match key values in two dictionaries.

x = {'key1': 1, 'key2': 3, 'key3': 2}
y = {'key1': 1, 'key2': 2}
for (key, value) in set(x.items()) & set(y.items()):
    print('%s: %s is present in both x and y' % (key,value))
```



IDLE Shell 3.11.3

File Edit Shell Debug Options Window Help

```
Aex
class : V
roll_id : 2
Puja
class : V
roll_id : 3
>>>
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
[('Chemistry', 87), ('Physics', 83), ('Math', 81)]
>>>
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
defaultdict(<class 'set'>, {'Class-V': {1}, 'Class-VI': {2}, 'Class-VII': {2}, 'Clas
s-VIII': {3}})
>>>
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
defaultdict(<class 'set'>, {'Class-V': {1}, 'Class-VI': {2}, 'Class-VII': {2}, 'Clas
s-VIII': {3}})
>>>
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
[{'id': 1, 'subject': 'math', 'V+VI': 76.0}, {'id': 2, 'subject': 'math', 'V+VI': 73
.5}, {'id': 3, 'subject': 'math', 'V+VI': 80.5}]
>>>
==== RESTART: C:\Users\mayan\AppData\Local\Programs\Python\Python311\assignment.py ===
key1: 1 is present in both x and y
>>>|
```

Ln: 40 Col: 0