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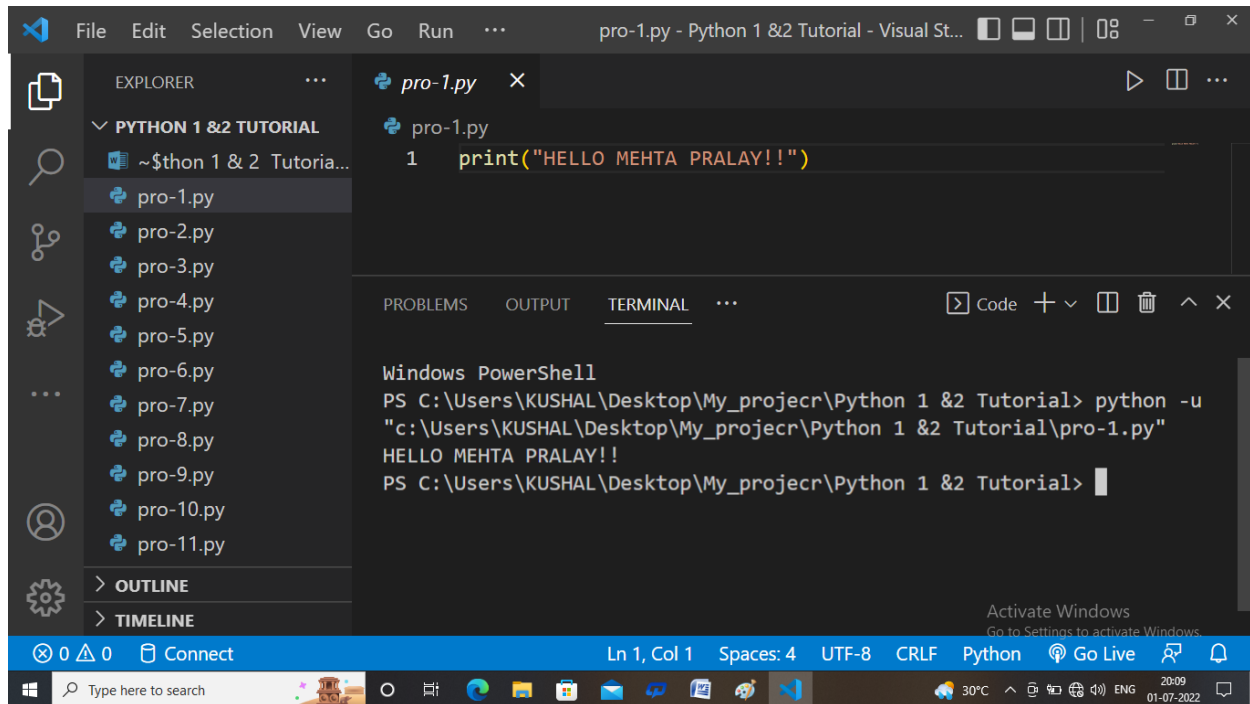
Company name: Akash Technolabs

Exercise : Python 1 & 2 Tutorial

Practice programs

Date : 26/06/2022

(PRACTICAL - 1):



The screenshot displays the Visual Studio Code interface. The Explorer panel on the left shows a project named 'PYTHON 1 &2 TUTORIAL' with a list of files from 'pro-1.py' to 'pro-11.py'. The main editor window is open to 'pro-1.py', which contains a single line of code: `print("HELLO MEHTA PRALAY!!")`. The bottom panel is split into 'PROBLEMS', 'OUTPUT', and 'TERMINAL' tabs. The 'TERMINAL' tab is active, showing a Windows PowerShell session. The command executed is `python -u "c:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial\pro-1.py"`, and the output is `HELLO MEHTA PRALAY!!`. The status bar at the bottom indicates the current cursor position is 'Ln 1, Col 1' with 'Spaces: 4', and the file encoding is 'UTF-8' with 'CRLF' line endings. The Python extension is loaded, and the 'Go Live' button is visible. The Windows taskbar at the very bottom shows the search bar and various application icons.

```
File Edit Selection View Go Run ... pro-1.py - Python 1 &2 Tutorial - Visual St...  
EXPLORER  
PYTHON 1 &2 TUTORIAL  
~$thon 1 & 2 Tutoria...  
pro-1.py  
pro-2.py  
pro-3.py  
pro-4.py  
pro-5.py  
pro-6.py  
pro-7.py  
pro-8.py  
pro-9.py  
pro-10.py  
pro-11.py  
OUTLINE  
TIMELINE  
pro-1.py  
1 print("HELLO MEHTA PRALAY!!")  
PROBLEMS OUTPUT TERMINAL  
Code + -   
Windows PowerShell  
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial> python -u  
"c:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial\pro-1.py"  
HELLO MEHTA PRALAY!!  
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial>  
Ln 1, Col 1 Spaces: 4 UTF-8 CRLF Python Go Live  
Type here to search 30°C 20:09 01-07-2022
```

(PRACTICAL - 2):

Visual Studio Code interface showing a Python file named `pro-2.py`. The Explorer sidebar on the left lists files from `pro-1.py` to `pro-11.py`. The main editor displays the following code:

```
1 #this is a comment
2 #comment written in hash function
3 print("HELLO MEHTA PRALAY!!")
4 '''
5 this is also comment
6 '''
7 """
8 it also other type of multi line commnt
9 """
```

The bottom panel shows the TERMINAL with the following command and output:

```
Windows PowerShell
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial> python -u "c:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial\pro-1.py"
HELLO MEHTA PRALAY!!
```

(PRACTICAL - 3):

Visual Studio Code interface showing a Python file named `pro-3.py`. The Explorer sidebar on the left lists files from `pro-1.py` to `pro-15.py`. The main editor displays the following code:

```
1 X = 'MEHTA'
2 Y = 'PRALAY'
3 AGE = 20
4
5 print("Surname is : ",X)
6
7 print("Name is : ",Y)
8
9 print("Age is : ",AGE)
```

The bottom panel shows the TERMINAL with the following command and output:

```
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial> python -u "c:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial\pro-3.py"
Surname is : MEHTA
Name is : PRALAY
Age is : 20
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial>
```

(PRACTICAL - 4):

```
File Edit Selection View Go Run ... pro-4.py - Python 1 &2 Tutorial - Visual St...  
EXPLORER  
PYTHON 1 &2 TUTORIAL  
~$thon 1 &2 Tutoria...  
pro-1.py  
pro-2.py  
pro-3.py  
pro-4.py  
pro-5.py  
pro-6.py  
pro-7.py  
pro-8.py  
pro-9.py  
pro-10.py  
pro-11.py  
OUTLINE  
TIMELINE  
pro-4.py  
1 name = "PRALAY"  
2 print("name is : ",name)  
3  
4 # new value assign to the name variable  
5 fullname = "PRALAYKUMAR MEHTA"  
6 print("name is : ",fullname)  
PROBLEMS OUTPUT TERMINAL ...  
Code + - - -  
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial> python -u  
"c:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial\pro-4.py"  
name is : PRALAY  
name is : PRALAYKUMAR MEHTA  
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial>  
Ln 6, Col 24 Spaces: 4 UTF-8 CRLF Python Go Live  
Type here to search 30°C 20:14 01-07-2022
```

(PRACTICAL - 5):

```
File Edit Selection View Go Run ... pro-5.py - Python 1 &2 Tutorial - Visual St...  
EXPLORER  
PYTHON 1 &2 TUTORIAL  
~$thon 1 &2 Tutoria...  
pro-1.py  
pro-2.py  
pro-3.py  
pro-4.py  
pro-5.py  
pro-6.py  
pro-7.py  
pro-8.py  
pro-9.py  
pro-10.py  
pro-11.py  
OUTLINE  
TIMELINE  
pro-5.py  
1 Name,Surname,Age,Branch = 'Pralay','Mehta',20,'IT'  
2  
3 print("Name is : ",Name)  
4 print("Surname is : ",Surname)  
5 print("Age is : ",Age)  
6 print("Branch is : ",Branch)  
7  
PROBLEMS OUTPUT TERMINAL ...  
Code + - - -  
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial> python -u  
"c:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial\pro-5.py"  
Name is : Pralay  
Surname is : Mehta  
Age is : 20  
Branch is : IT  
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial>  
Ln 1, Col 1 Spaces: 4 UTF-8 CRLF Python Go Live  
Type here to search 30°C 20:14 01-07-2022
```

(PRACTICAL - 6):

```
File Edit Selection View Go Run ... pro-6.py - Python 1 &2 Tutorial - Visual St...  
EXPLORER  
PYTHON 1 &2 TUTORIAL  
~$thon 1 &2 Tutoria...  
pro-1.py  
pro-2.py  
pro-3.py  
pro-4.py  
pro-5.py  
pro-6.py  
pro-7.py  
pro-8.py  
pro-9.py  
pro-10.py  
pro-11.py  
OUTLINE  
TIMELINE  
pro-6.py  
1 x = y = z = 50  
2  
3 print("Value of x is : ",x)  
4 print("Value of y is : ",y)  
5 print("Value of z is : ",z)  
PROBLEMS OUTPUT TERMINAL  
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial> python -u  
"c:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial\pro-6.py"  
Value of x is : 50  
Value of y is : 50  
Value of z is : 50  
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial>  
Ln 1, Col 1 Spaces: 4 UTF-8 CRLF Python Go Live
```

(PRACTICAL - 7):

```
File Edit Selection View Go Run Terminal Help pro-7.py - Python 1 &2 Tutorial - Visual Studio Code  
EXPLORER  
PYTHON 1 &2 TUTORIAL  
~$thon 1 &2 Tutoria...  
pro-1.py  
pro-2.py  
pro-3.py  
pro-4.py  
pro-5.py  
pro-6.py  
pro-7.py  
pro-8.py  
pro-9.py  
pro-10.py  
pro-11.py  
pro-12.py  
pro-13.py  
pro-14.py  
pro-15.py  
OUTLINE  
TIMELINE  
pro-7.py  
1 num1 = 50  
2 print("num1 type is : ",type(num1))  
3 print(num1,"is complex number? : ", isinstance(50, complex))  
4  
5 num2 = 25.70  
6 print("num2 type is : ",type(num2))  
7 print(num2,"is complex number? : ", isinstance(25.70, complex))  
8  
9 num3 = 1 + 2j  
10 print(num3,"is complex number? : ", isinstance(1 + 2j, complex))  
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL SQL CONSOLE: MESSAGES  
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial> python -u "c:\Users\KUSHAL\Des  
ktop\My_projecr\Python 1 &2 Tutorial\pro-7.py"  
num1 type is : <class 'int'>  
50 is complex number? : False  
num2 type is : <class 'float'>  
25.7 is complex number? : False  
(1+2j) is complex number? : True  
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial>  
Ln 1, Col 1 Spaces: 4 UTF-8 CRLF Python Go Live
```

(PRACTICAL – 8(1)):

```
1 Name = 'MEHTA PRALAY'
2
3 # single characters printing
4 print(Name[0])
5 print(Name[1])
6 print(Name[2])
7 print(Name[3])
8 print(Name[4])
9 print(Name[5])
10 print(Name[6])
11 print(Name[7])
12 print(Name[8])
13 print(Name[9])
14 print(Name[10])
15 print(Name[11])
16
17 print(Name[0:5])
18 print(Name[7:11])
19 print(Name[2:8])
20 print(Name[2:])
21 print(Name * 4)
22 print("HELLO " + Name)
```

(PRACTICAL - 8(2)):

```
ktop\My_project\Python 1 &2 Tutorial\pro-8.py"
M
E
H
T
A

P
R
A
L
A
Y
MEHTA
RALA
HTA PR
HTA PRALAY
MEHTA PRALAYMEHTA PRALAYMEHTA PRALAYMEHTA PRALAY
HELLO MEHTA PRALAY
PS C:\Users\KUSHAL\Desktop\My_project\Python 1 &2 Tutorial>
```

(PRACTICAL - 9):

```
File Edit Selection View Go Run Terminal Help pro-9.py - Python 1 & 2 Tutorial - Visual Studio Code
```

EXPLORER

PYTHON 1 & 2 TUTORIAL

- ~\$thon 1 & 2 Tutoria...
- pro-1.py
- pro-2.py
- pro-3.py
- pro-4.py
- pro-5.py
- pro-6.py
- pro-7.py
- pro-8.py
- pro-9.py
- pro-10.py
- pro-11.py
- pro-12.py
- pro-13.py
- pro-14.py
- pro-15.py

OUTLINE

TIMELINE

pro-9.py

```
1 List = ['gold', 'silver', 'diamond', 'platinum', 'stocks']
2
3 print(List)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL SQL CONSOLE: MESSAGES

```
PS C:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial> python -u "c:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial\pro-9.py"
['gold', 'silver', 'diamond', 'platinum', 'stocks']
PS C:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial>
```

Activate Windows
Go to Settings to activate Windows.

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF Python Go Live

(PRACTICAL - 10):

```
File Edit Selection View Go Run Terminal Help pro-10.py - Python 1 & 2 Tutorial - Visual Studio Code
```

EXPLORER

PYTHO...

- ~\$thon 1 & 2 Tutoria...
- pro-1.py
- pro-2.py
- pro-3.py
- pro-4.py
- pro-5.py
- pro-6.py
- pro-7.py
- pro-8.py
- pro-9.py
- pro-10.py
- pro-11.py
- pro-12.py
- pro-13.py
- pro-14.py
- pro-15.py

OUTLINE

TIMELINE

pro-10.py

```
1 List = ['gold', 'silver', 36, 'diamond', 'platinum', 'stocks', 20, 90]
2
3 print(List[3])
4 print(List[0:4])
5 print(List[0:])
6
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL SQL CONSOLE: MESSAGES

```
PS C:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial> python -u "c:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial\pro-10.py"
diamond
['gold', 'silver', 36, 'diamond']
['gold', 'silver', 36, 'diamond', 'platinum', 'stocks', 20, 90]
PS C:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial>
```

Activate Windows
Go to Settings to activate Windows.

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF Python Go Live

(PRACTICAL - 11):

The screenshot shows the Visual Studio Code interface with a file explorer on the left containing files named pro-1.py through pro-15.py. The main editor displays the code for pro-11.py, which creates an empty list, prompts the user for the number of elements, and then prompts for each element to be added. The terminal at the bottom shows the command to run the script, followed by the user's input: 3 elements, with values 'ram', 'shyam', and 'kishan'. The output shows the resulting list: ['ram shyam kishan'].

```
1 # Create empty list
2 list = []
3
4 n = int(input("Enter the number of elements : "))
5
6 # Range function
7 for i in range(0,n):
8     Element = input('Enter the elements : ')
9
10    list.append(Element)
11
12    print(list)
```

PS C:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial> python -u "c:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial\pro-11.py"

Enter the number of elements : 3

Enter the elements : ram shyam kishan

['ram shyam kishan']

Enter the elements :

(PRACTICAL - 12):

The screenshot shows the Visual Studio Code interface with the file explorer highlighting pro-12.py. The main editor displays the code for pro-12.py, which creates two tuples: tuple1 with numerical and string values, and tuple2 with string and numerical values. The terminal shows the command to run the script, followed by the output of the print statements, displaying the contents of both tuples.

```
1 tuple1 = (12,78,97,'PIYUSH','SHYAM','ROMAN','CHIRAG','KRRISH','KUSHAL')
2 # we can denote tuple : () / 'aksha','ram',78
3 tuple2 = "RAM","JAMS","ROHAN",55,66,77
4
5 print('Tuple one is = ',tuple1)
6 print('Tuple two is = ',tuple2)
```

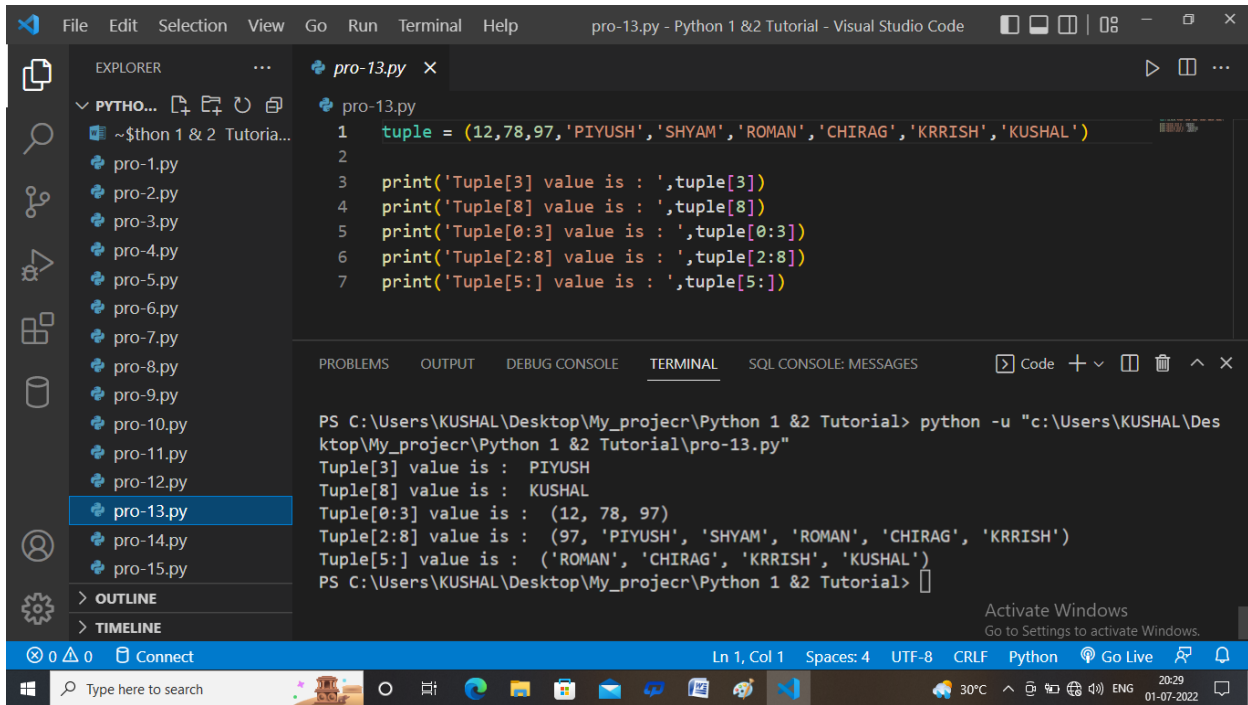
PS C:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial> python -u "c:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial\pro-12.py"

Tuple one is = (12, 78, 97, 'PIYUSH', 'SHYAM', 'ROMAN', 'CHIRAG', 'KRRISH', 'KUSHAL')

Tuple two is = ('RAM', 'JAMS', 'ROHAN', 55, 66, 77)

PS C:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial>

(PRACTICAL - 13):



```
File Edit Selection View Go Run Terminal Help pro-13.py - Python 1 &2 Tutorial - Visual Studio Code
```

EXPLORER

- ~\$thon 1 &2 Tutoria...
- pro-1.py
- pro-2.py
- pro-3.py
- pro-4.py
- pro-5.py
- pro-6.py
- pro-7.py
- pro-8.py
- pro-9.py
- pro-10.py
- pro-11.py
- pro-12.py
- pro-13.py**
- pro-14.py
- pro-15.py

pro-13.py

```
1 tuple = (12,78,97,'PIYUSH','SHYAM','ROMAN','CHIRAG','KRRISH','KUSHAL')
2
3 print('Tuple[3] value is : ',tuple[3])
4 print('Tuple[8] value is : ',tuple[8])
5 print('Tuple[0:3] value is : ',tuple[0:3])
6 print('Tuple[2:8] value is : ',tuple[2:8])
7 print('Tuple[5:] value is : ',tuple[5:])
```

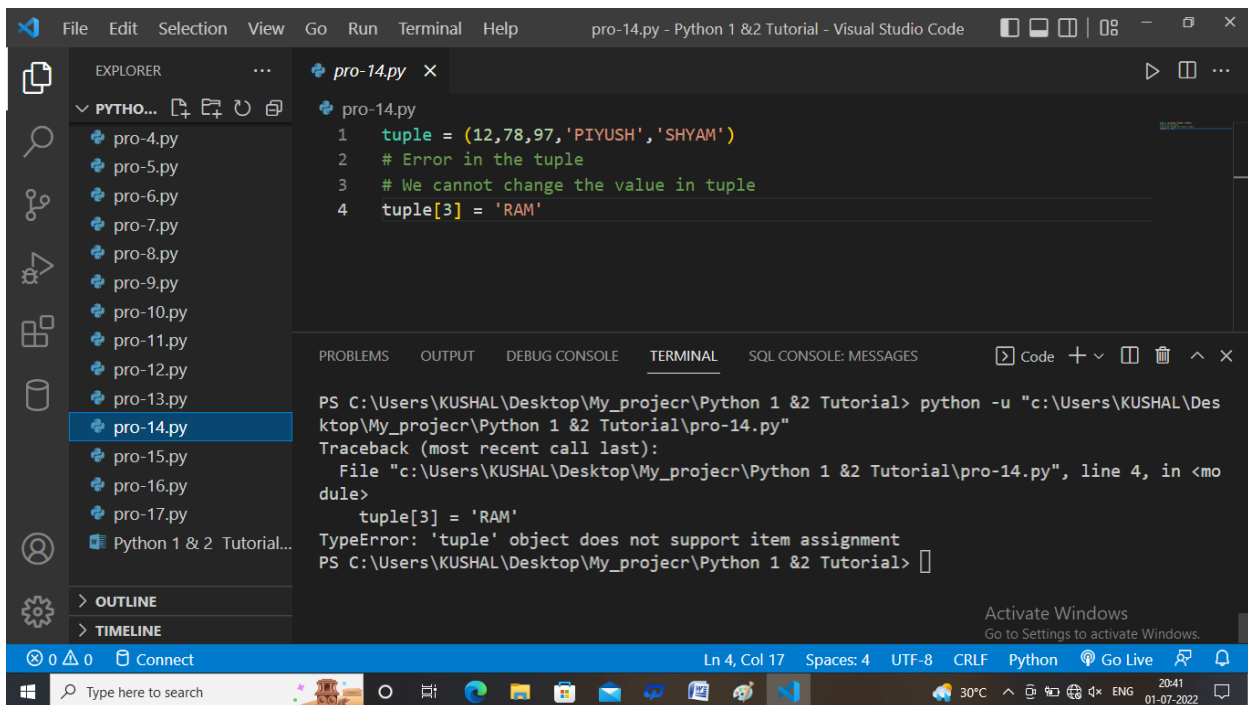
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL SQL CONSOLE: MESSAGES

```
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial> python -u "c:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial\pro-13.py"
Tuple[3] value is : PIYUSH
Tuple[8] value is : KUSHAL
Tuple[0:3] value is : (12, 78, 97)
Tuple[2:8] value is : (97, 'PIYUSH', 'SHYAM', 'ROMAN', 'CHIRAG', 'KRRISH')
Tuple[5:] value is : ('ROMAN', 'CHIRAG', 'KRRISH', 'KUSHAL')
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial>
```

Activate Windows
Go to Settings to activate Windows.

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF Python Go Live

(PRACTICAL - 14):



```
File Edit Selection View Go Run Terminal Help pro-14.py - Python 1 &2 Tutorial - Visual Studio Code
```

EXPLORER

- pro-4.py
- pro-5.py
- pro-6.py
- pro-7.py
- pro-8.py
- pro-9.py
- pro-10.py
- pro-11.py
- pro-12.py
- pro-13.py
- pro-14.py**
- pro-15.py
- pro-16.py
- pro-17.py
- Python 1 &2 Tutorial...

pro-14.py

```
1 tuple = (12,78,97,'PIYUSH','SHYAM')
2 # Error in the tuple
3 # We cannot change the value in tuple
4 tuple[3] = 'RAM'
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL SQL CONSOLE: MESSAGES

```
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial> python -u "c:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial\pro-14.py"
Traceback (most recent call last):
  File "c:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial\pro-14.py", line 4, in <module>
    tuple[3] = 'RAM'
TypeError: 'tuple' object does not support item assignment
PS C:\Users\KUSHAL\Desktop\My_projecr\Python 1 &2 Tutorial>
```

Activate Windows
Go to Settings to activate Windows.

Ln 4, Col 17 Spaces: 4 UTF-8 CRLF Python Go Live

(PRACTICAL - 15(1)):

```
1 list = []
2
3 n = int(input("Enter the number of elements : "))
4
5 # Range function
6 for i in range(0,n):
7     Element = input('Enter the elements : ')
8
9     list.append(Element)
10
11 tuple = tuple(list)
12 print(list)
13 print(tuple)
14
15
```

(PRACTICAL - 15(2)):

```
PS C:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial> python -u "c:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial\pro-15.py"
Enter the number of elements : 11
Enter the elements : Kushal
Enter the elements : Pratham
Enter the elements : Tushar
Enter the elements : Gauri
Enter the elements : Sarvagna
Enter the elements : Parag
Enter the elements : Saurabh
Enter the elements : Chirag
Enter the elements : Krrish
Enter the elements : Vishwa
Enter the elements : Raghav
List is : ['Kushal', 'Pratham', 'Tushar', 'Gauri', 'Sarvagna', 'Parag', 'Saurabh', 'Chirag', 'Krrish', 'Vishwa', 'Raghav']
Tuple is : ('Kushal', 'Pratham', 'Tushar', 'Gauri', 'Sarvagna', 'Parag', 'Saurabh', 'Chirag', 'Krrish', 'Vishwa', 'Raghav')
PS C:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial>
```

(PRACTICAL - 16):

The screenshot shows the Visual Studio Code interface with a file explorer on the left containing a folder named 'PYTHON 1 & 2 TUTORIAL' with files 'pro-4.py' through 'pro-17.py'. The main editor displays 'pro-16.py' with the following code:

```
1 # Dictionary data type
2 # Dictionary datatype in value stored in curly braces : {}
3 dict = {1: 'RAM', 2: 'SHYAM', 3: 'KISHAN', 4: 'KUSHAL', 5: 'RAJ', 'total': 157}
4 print(type(dict))
5
6 print("dict[1] value is : ", dict[1])
7 print("dict[4] value is : ", dict[4])
8 print("dict['total'] value is : ", dict['total'])
```

The terminal at the bottom shows the execution of the script:

```
PS C:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial> python -u "c:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial\pro-16.py"
<class 'dict'>
dict[1] value is : RAM
dict[4] value is : KUSHAL
dict['total'] value is : 157
PS C:\Users\KUSHAL\Desktop\My_project\Python 1 & 2 Tutorial>
```

The status bar at the bottom indicates 'Ln 1, Col 1', 'Spaces: 4', 'UTF-8', 'CRLF', 'Python', and 'Go Live'.

(PRACTICAL - 17):

The screenshot shows the Visual Studio Code interface with a file explorer on the left containing a folder named 'PYTHON 1 & 2 TUTORIAL' with files 'pro-4.py' through 'pro-17.py'. The main editor displays 'pro-17.py' with the following code:

```
1 dict = {}
2 n = int(input("Enter the value of element : "))
3
4 for i in range(0, n):
5     a, b = input("Enter key value pair data : ").split()
6     dict[a] = [b]
7     print(dict)
```

The terminal at the bottom shows the execution of the script with user input:

```
ktop\My_project\Python 1 & 2 Tutorial\pro-17.py"
Enter the value of element : 5
Enter key value pair data : 1 Vikrant
{'1': ['Vikrant']}
Enter key value pair data : 2 Jashesh
{'1': ['Vikrant'], '2': ['Jashesh']}
Enter key value pair data : 50 Pralay
{'1': ['Vikrant'], '2': ['Jashesh'], '50': ['Pralay']}
Enter key value pair data : 157 Piyush
{'1': ['Vikrant'], '2': ['Jashesh'], '50': ['Pralay'], '157': ['Piyush']}
Enter key value pair data : 143 Shyam
{'1': ['Vikrant'], '2': ['Jashesh'], '50': ['Pralay'], '157': ['Piyush'], '143': ['Shyam']}
```

The status bar at the bottom indicates 'Ln 1, Col 1', 'Spaces: 4', 'UTF-8', 'CRLF', 'Python', and 'Go Live'.



THE END