REGEX ONLINE TRAINING PYTHON ASSIGNMENTS

Answer 1 . Jython is the JVM implementation of the Python programming language. It is designed to run on the Java platform. A Jython program can import and use any Java class. Just as Java, Jython program compiles to **bytecode**. Whereas Cython is an optimising static compiler for both the **Python** programming language and the extended Cython programming language (based on Pyrex). It makes writing C extensions for Python as easy as Python itself.

Answer 2 .

Basis of comparison	**Python 3**	**Python 2**
Release Date	2008	2000
Function print	print ("hello")	print "hello"
Division of Integers	Whenever two integers are divided, you get a float value	When two integers are divided, you always provide integer value.
Unicode	In Python 3, default storing of strings is Unicode.	To store Unicode string value, you require to define them with "u".
Syntax	The syntax is simpler and easily understandable.	The syntax of Python 2 was comparatively difficult to understand.
Rules of ordering Comparisons	In this version, Rules of ordering comparisons have been simplified.	Rules of ordering comparison are very complex.
Iteration	The new Range() function introduced to perform iterations.	In Python 2, the xrange() is used for iterations.
Exceptions	It should be enclosed in parenthesis.	It should be enclosed in notations.
Leak of variables	The value of variables never changes.	The value of the global variable will change while using it inside for-loop.
Backward compatibility	Not difficult to port python 2 to python 3 but it is never reliable.	Python version 3 is not backwardly compatible with Python 2.
Library	Many recent developers are creating libraries which you can only use with Python 3.	

Answer 3 :

ASCII defines 128 characters, which map to the numbers 0–127. Unicode defines (less than) 221characters, which, similarly, map to numbers 0–221 (though not all numbers are currently assigned, and some are reserved).

Unicode is a superset of ASCII, and the numbers 0–128 have the same meaning in ASCII as they have in Unicode. For example, the number 65 means "Latin capital 'A'".

Because Unicode characters don't generally fit into one 8-bit byte, there are numerous ways of storing Unicode characters in byte sequences, such as UTF-32 and UTF-8.

C follows ASCII and Java follows UNICODE.

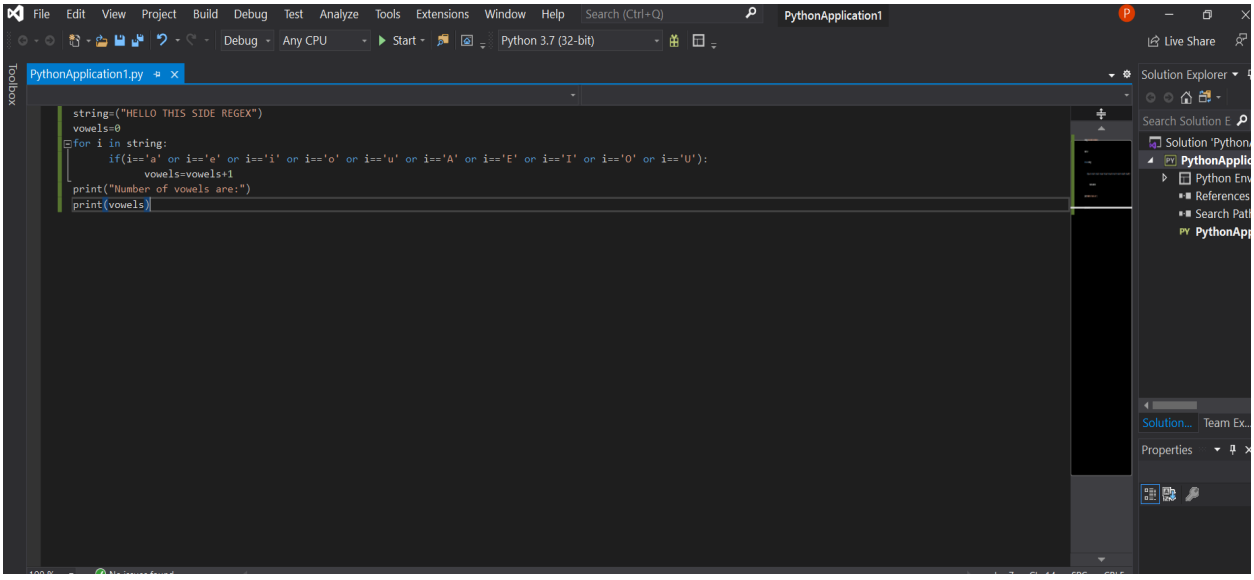
Class 2 :

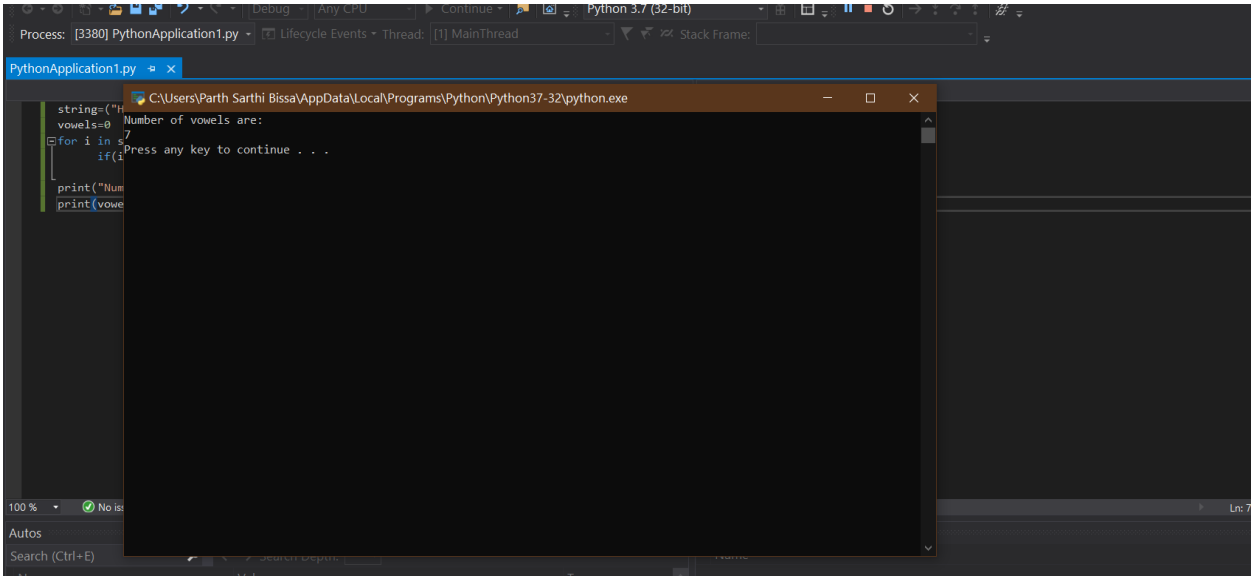
Answer 1 :

Output of (3+4**6-9*10/2) will be : 4054

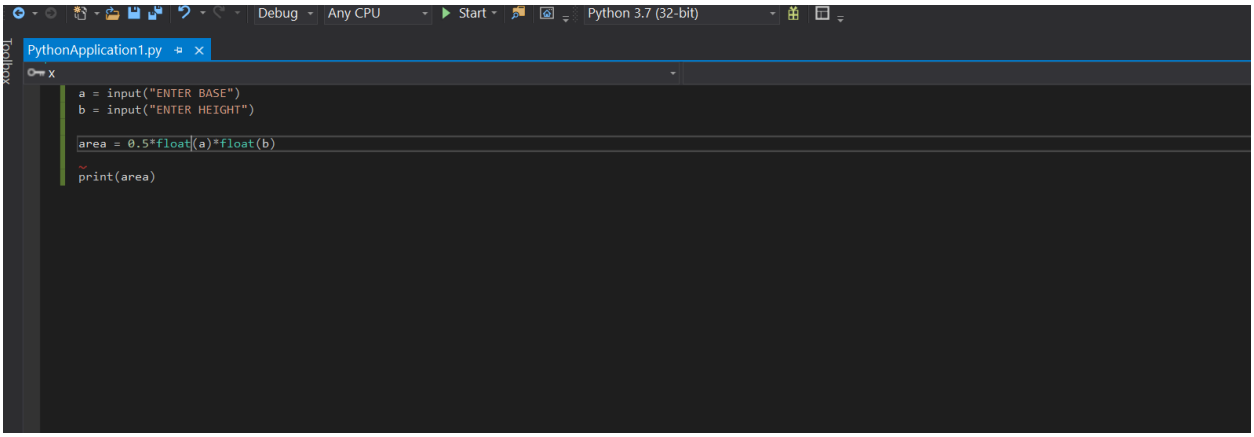
Answer 2 : To count vowels in a string (“HELLO THIS SIDE REGEX”)

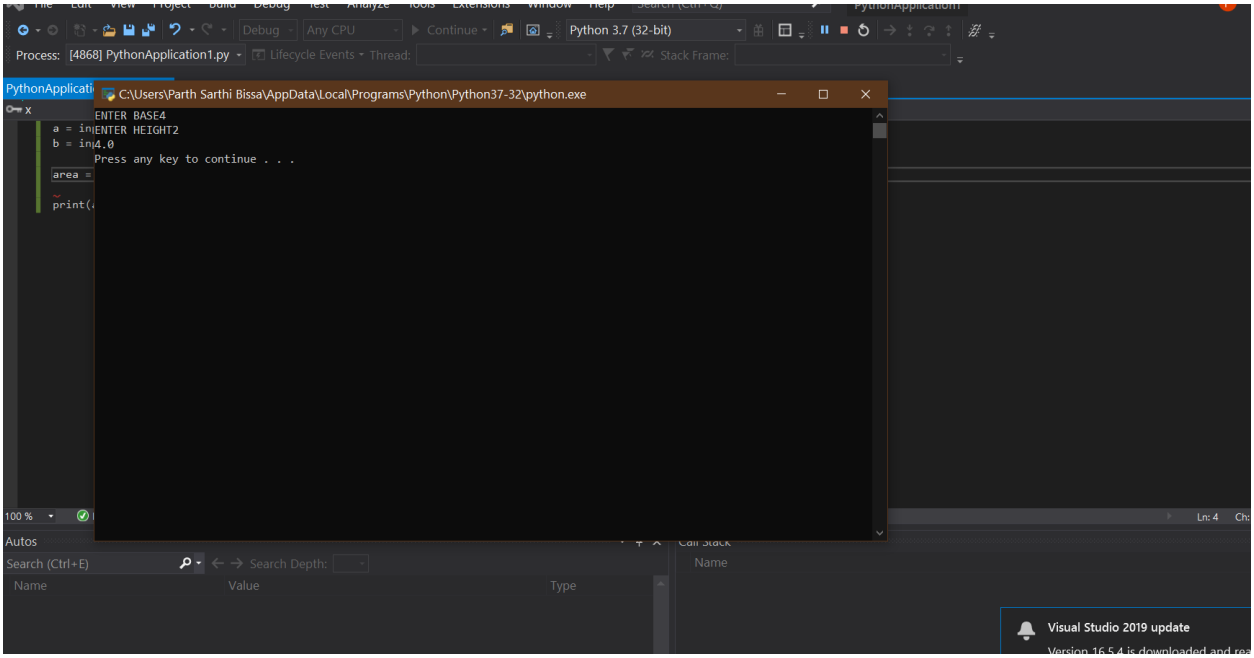
PROGRAM :




Process: [3380] PythonApplication1.py
PythonApplication1.py
C:\Users\Parth Sarthi Bissa\AppData\Local\Programs\Python\Python37-32\python.exe
Number of vowels are:
7
Press any key to continue . . .

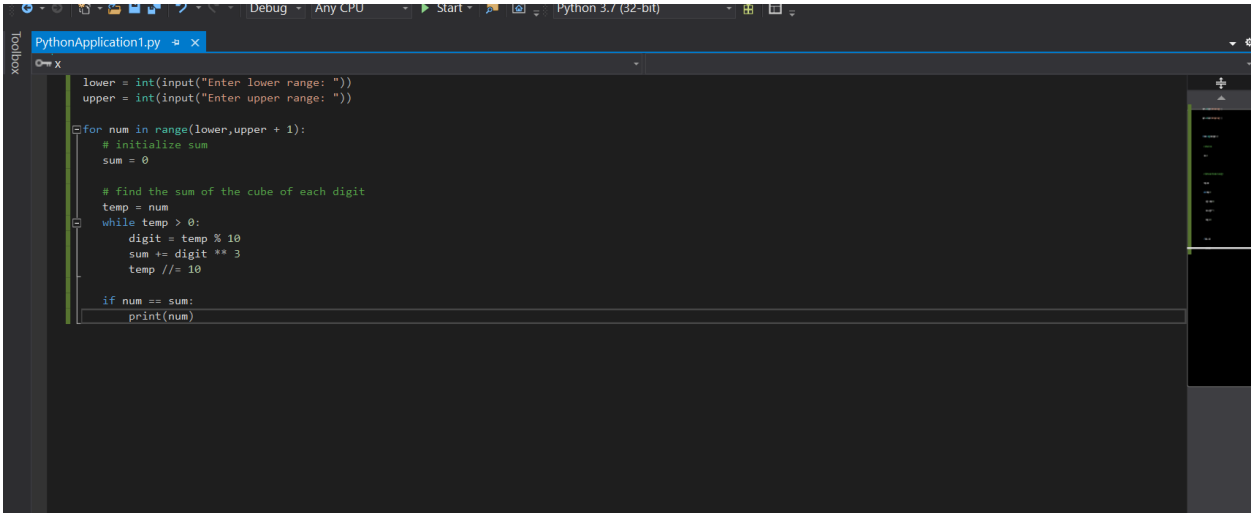
Answer 4 :


Debug
Any CPU
Start
Python 3.7 (32-bit)
PythonApplication1.py
a = input("ENTER BASE")
b = input("ENTER HEIGHT")
area = 0.5*float(a)*float(b)
print(area)

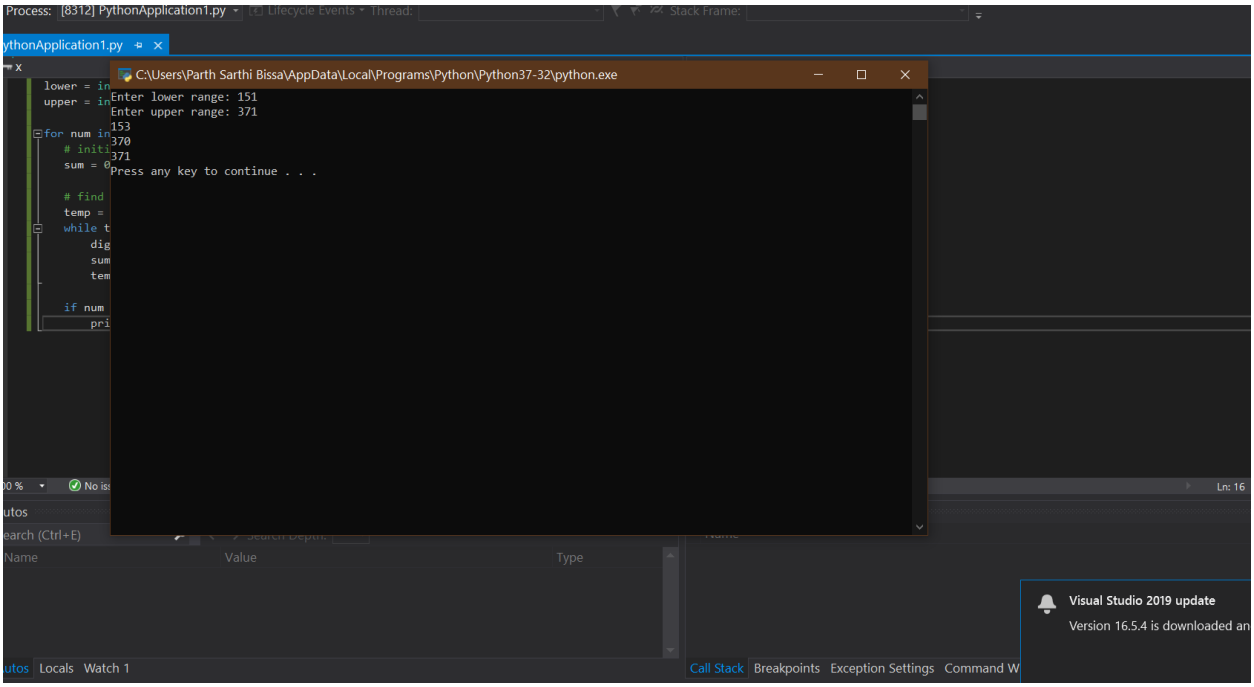


Answer 5 :

ARMSTRONG NUMBER PROGRAM

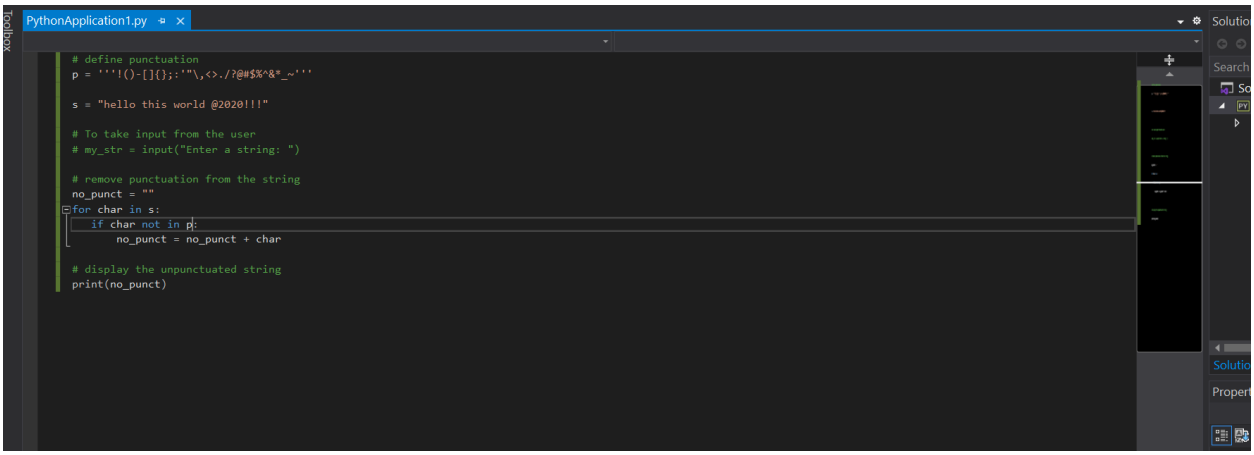


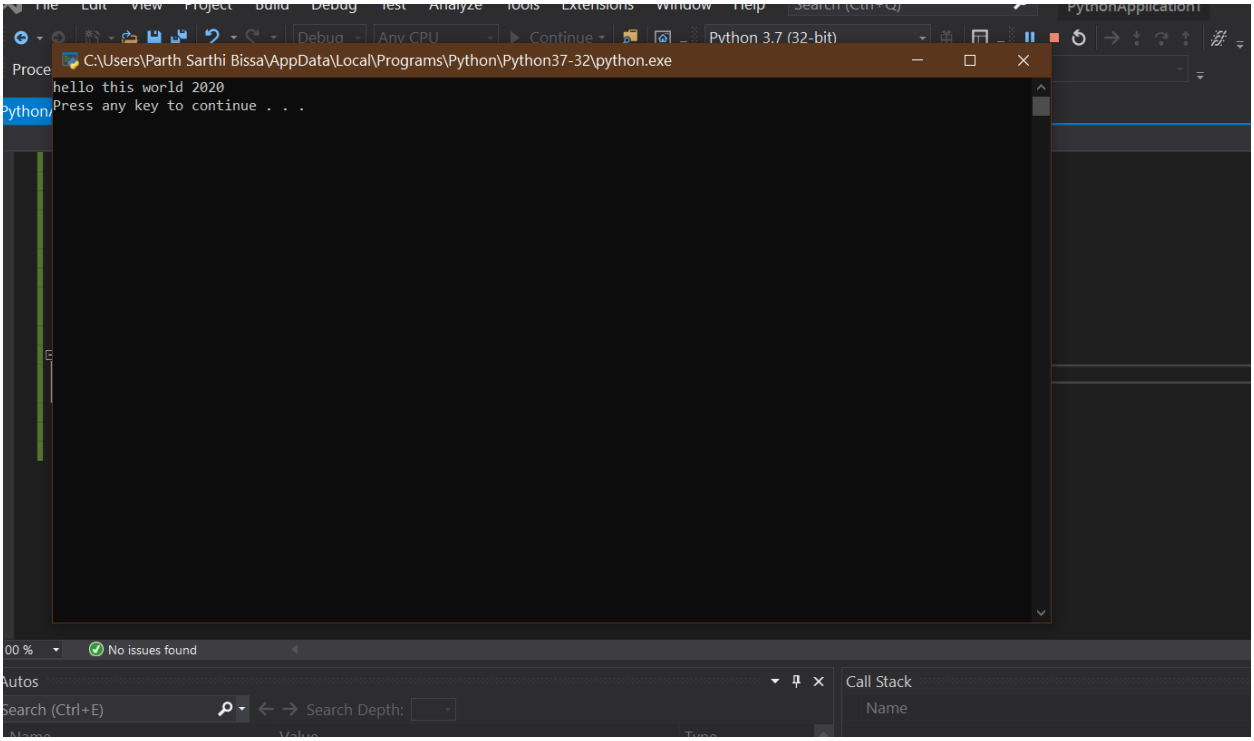

```
lower = int(input("Enter lower range: "))
upper = int(input("Enter upper range: "))

for num in range(lower,upper + 1):
    # initialize sum
    sum = 0

    # find the sum of the cube of each digit
    temp = num
    while temp > 0:
        digit = temp % 10
        sum += digit ** 3
        temp //= 10

    if num == sum:
        print(num)
```



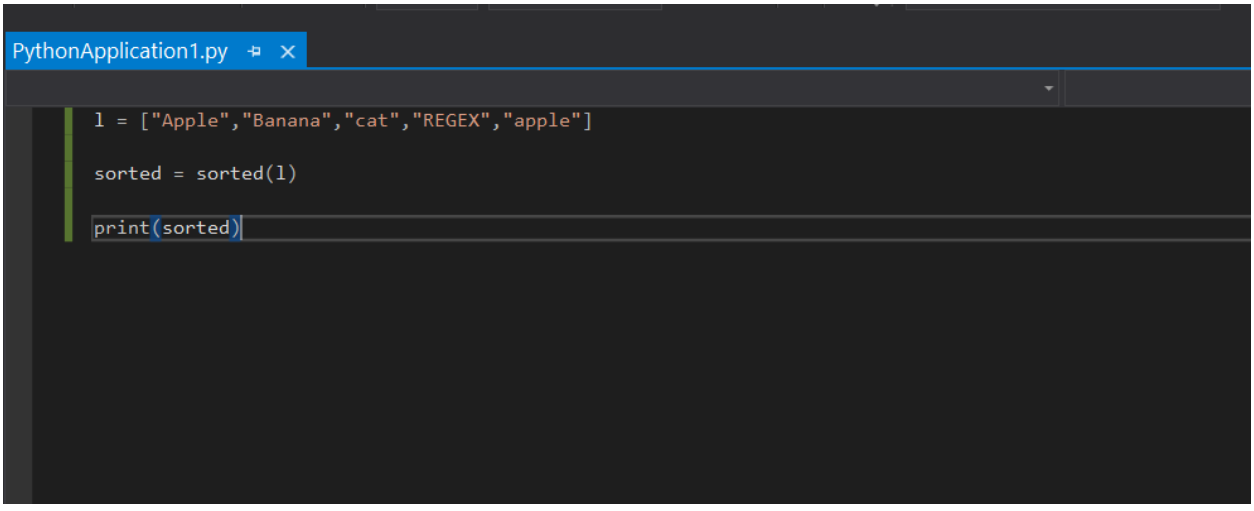
Answer 6 :

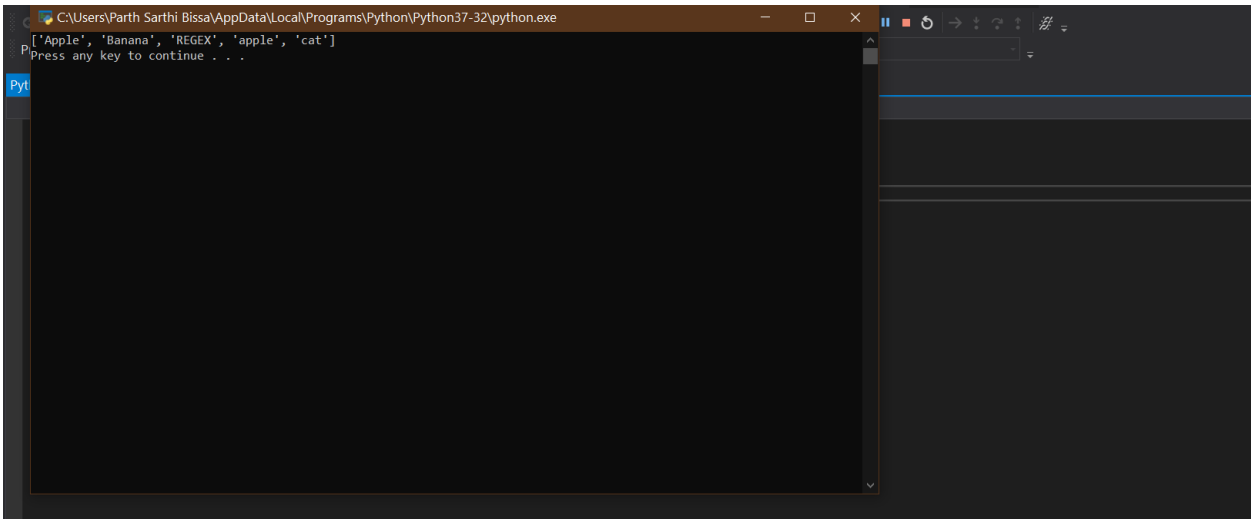
REMOVE PUNCTUATIONS FROM STRING :




C:\Users\Parth Sarthi Bissa\AppData\Local\Programs\Python\Python37-32\python.exe
hello this world 2020
Press any key to continue . . .
Python 3.7 (32-bit)
No issues found
Call Stack
Name

Answer 7 :


PythonApplication1.py
l = ["Apple","Banana","cat","REGEX","apple"]
sorted = sorted(l)
print(sorted)

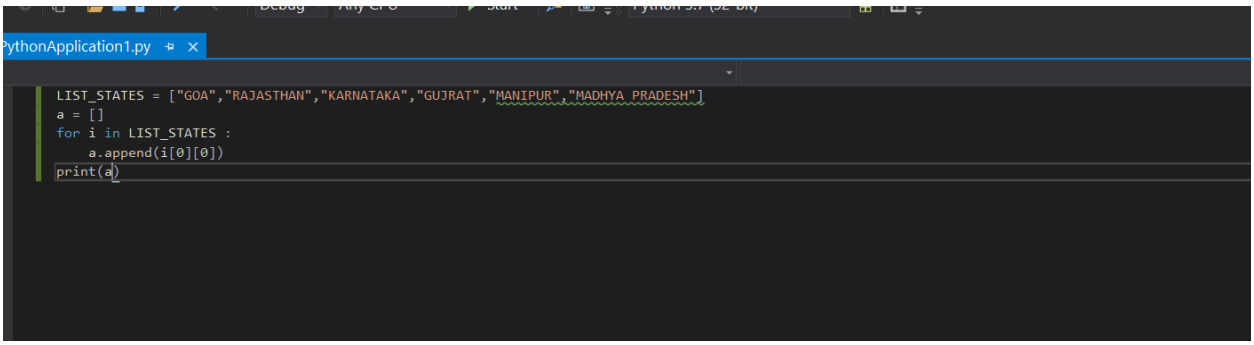


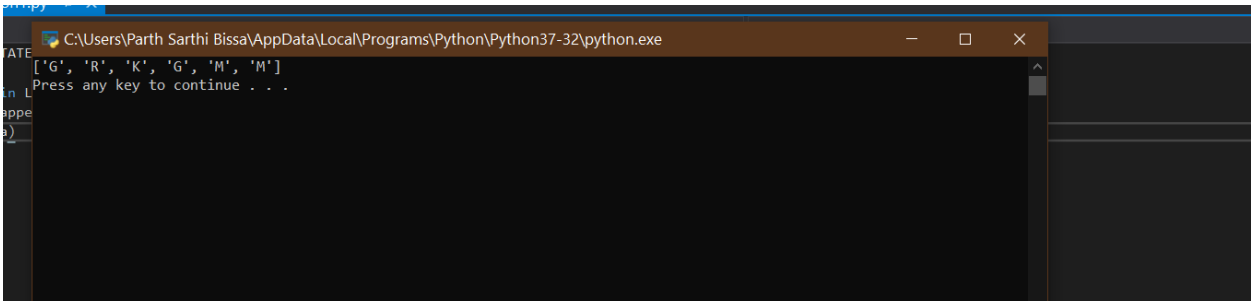
SORTING WORKS FIRSTLY ON ALL UPPERCASE STARTING ALPHABETS AND THEN ON THE LOWERCASE STARTING ALPHABETS

ASSIGNMENT 2 :

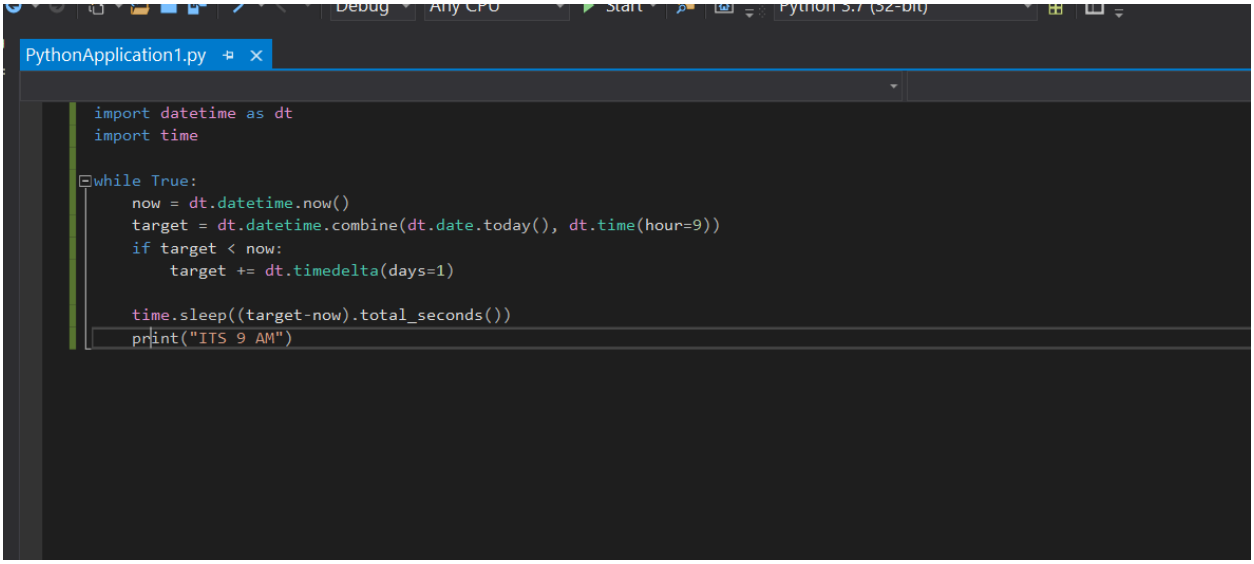
Answer 1 :

TO PRINT A NEW LIST CONTAINING ALL FIRST LETTER OF CHARACTERS INSIDE A GIVEN LIST

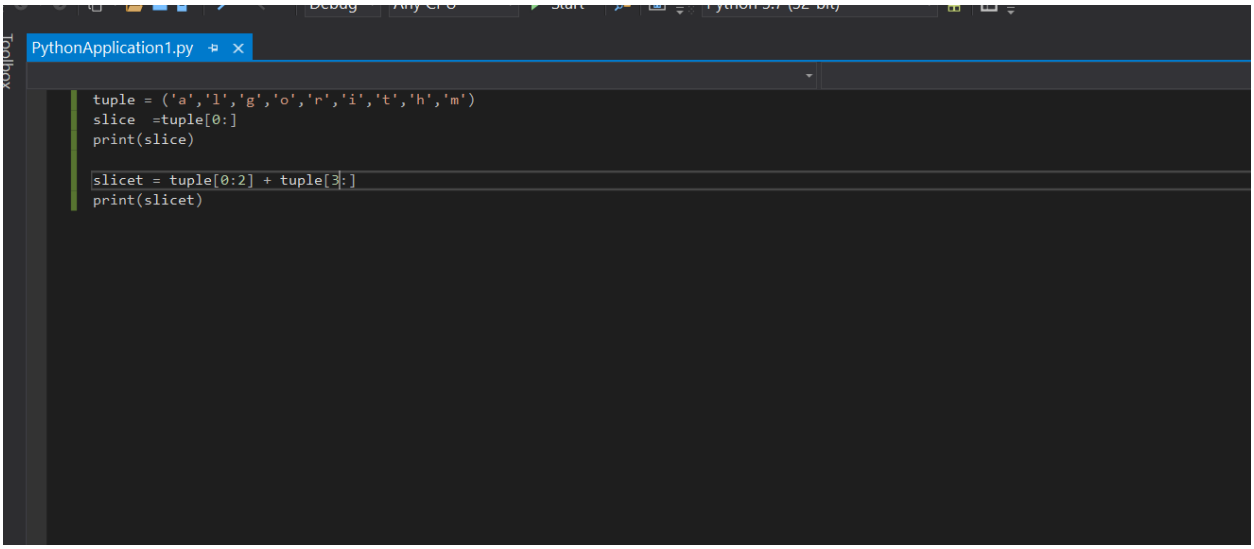


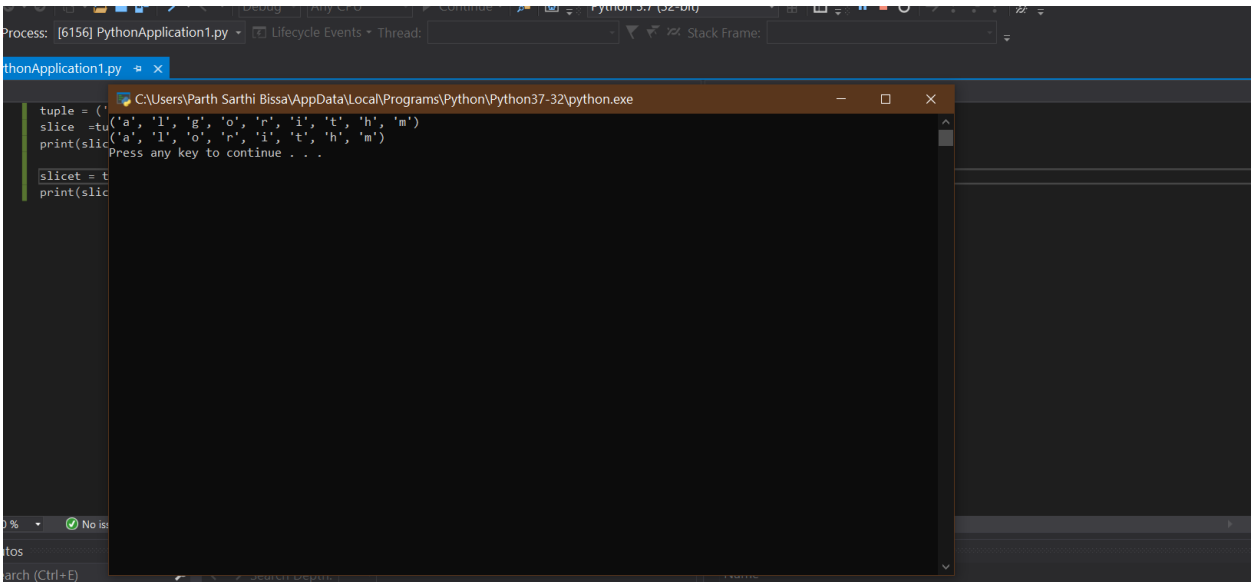


Answer 2 :



Answer 3 :


PythonApplication1.py
tuple = ('a','l','g','o','r','i','t','h','m')
slice =tuple[0:]
print(slice)
slicet = tuple[0:2] + tuple[3:]
print(slicet)


C:\Users\Parth Sarthi Bissa\AppData\Local\Programs\Python\Python37-32\python.exe
('a', 'l', 'g', 'o', 'r', 'i', 't', 'h', 'm')
('a', 'l', 'o', 'r', 'i', 't', 'h', 'm')
Press any key to continue . . .

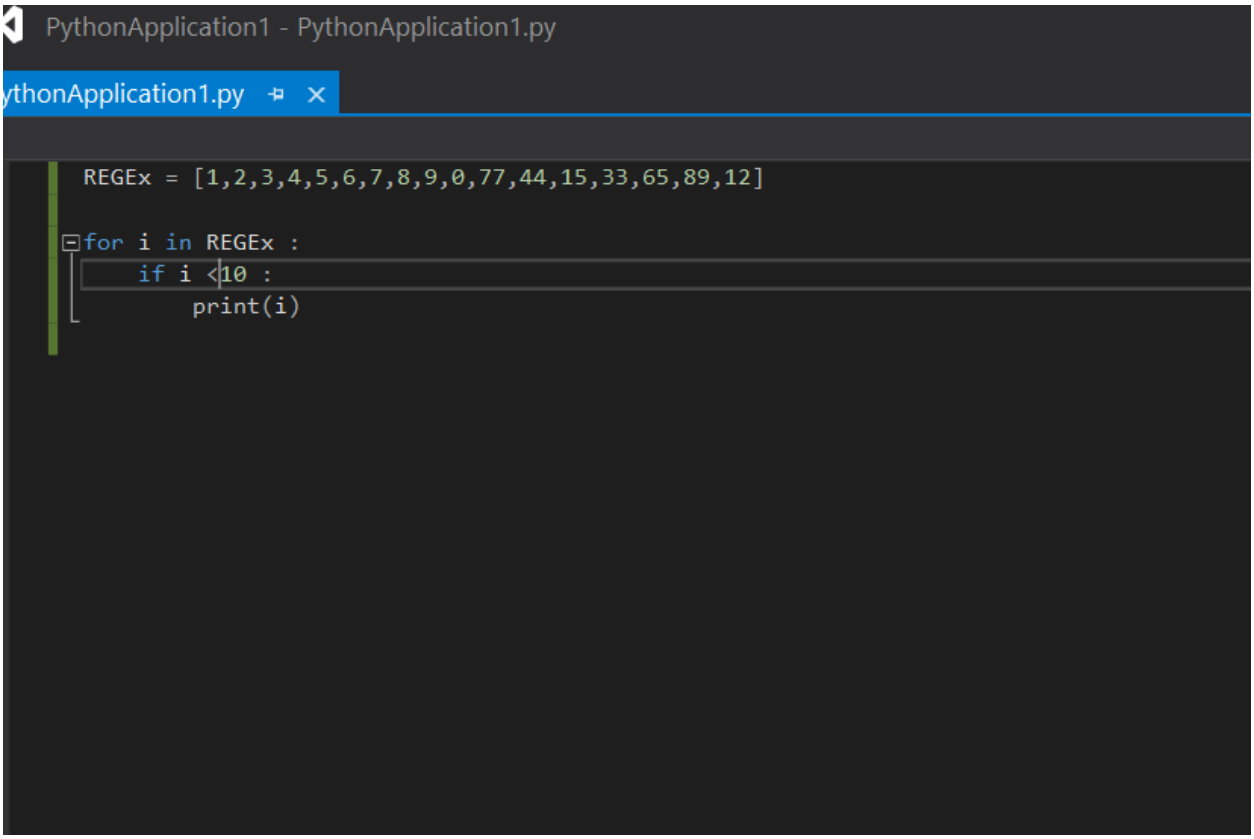
Answer 4 :

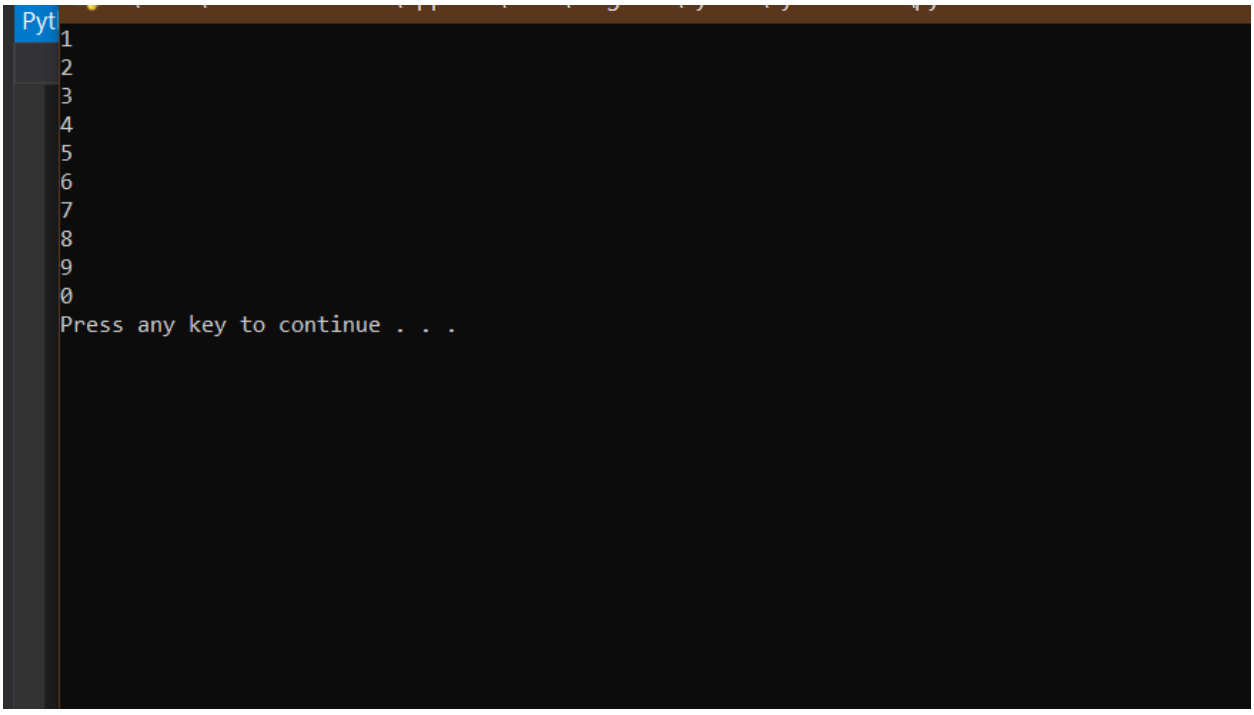
PythonApplication1.py

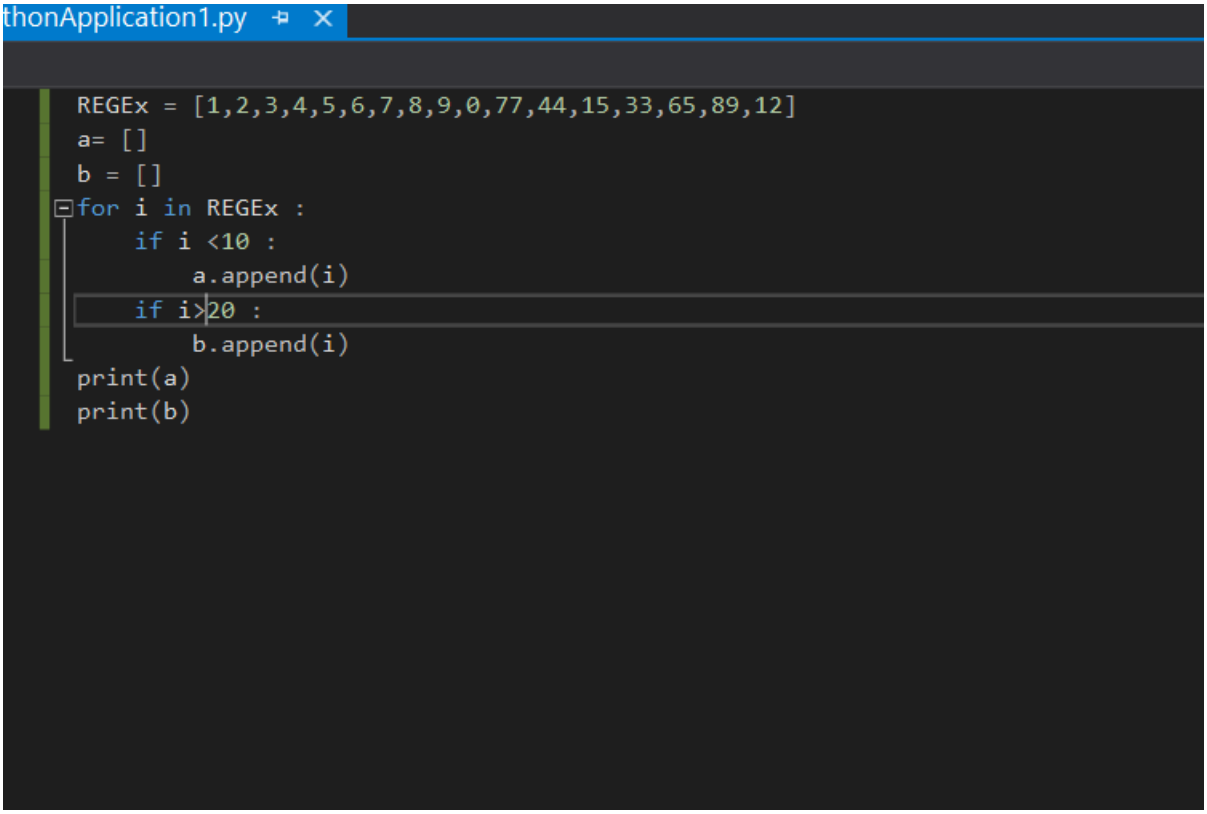
```
REGEx = [1,2,3,4,5,6,7,8,9,0,77,44,15,33,65,89,12]

for i in REGEx :
    if i >20 :
        print(i)
```

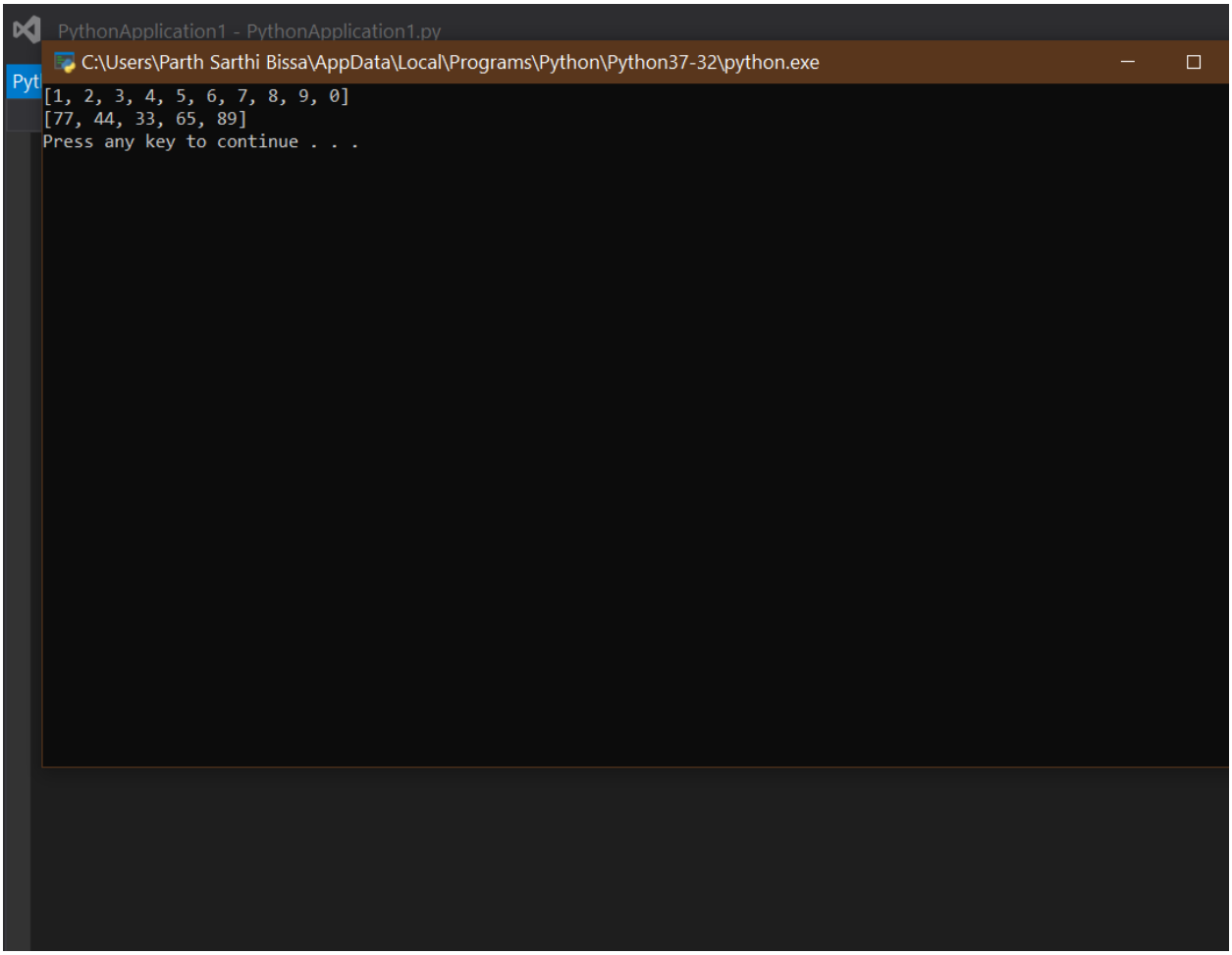
C:\Users\Parth Sarthi Bissa\AppData\Local\Programs\Python\Python37-32\python.exe

```
77
44
33
65
89
Press any key to continue . . .
```


PythonApplication1 - PythonApplication1.py
ythonApplication1.py
REGEx = [1,2,3,4,5,6,7,8,9,0,77,44,15,33,65,89,12]
for i in REGEx :
if i <10 :
print(i)


Pyt
1
2
3
4
5
6
7
8
9
0
Press any key to continue . . .


thonApplication1.py
REGEx = [1,2,3,4,5,6,7,8,9,0,77,44,15,33,65,89,12]
a= []
b = []
for i in REGEx :
if i <10 :
a.append(i)
if i>20 :
b.append(i)
print(a)
print(b)



Answer 5 :

Using os module in python we can run the linux command through a python program like :

import os

os.system(“date”)

For running date command of linux using python

Answer 6 :

*args = The special syntax **args* in function definitions in python is used to pass a variable number of arguments to a function. It is used to pass a non-keyworded, variable-length argument list.

**kwargs = The special syntax ***kwargs* in function definitions in python is used to pass a keyworded, variable-length argument list. We use the name *kwargs* with the double star. The reason is because the double star allows us to pass through keyword arguments (and any number of them).