

DAY-4 LAB EXPERIMENTS

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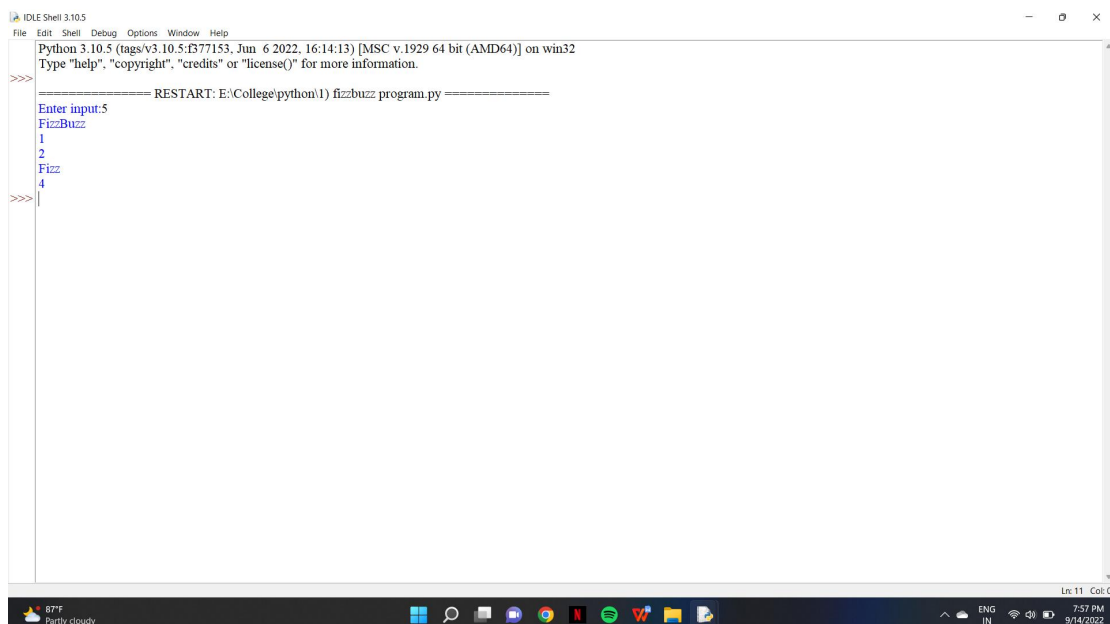
SUBJECT CODE:CSA0836

SUBJECT: PYTHON

DATE: 14/09/2022

```
1) n=int(input("Enter input:"))
for fizzbuzz in range(n):
    if fizzbuzz % 15 == 0:
        print("FizzBuzz")
        continue
    elif fizzbuzz % 3 == 0:
        print("Fizz")
        continue
    elif fizzbuzz % 5 == 0:
        print("Buzz")
        continue
    print(fizzbuzz)
```

OUTPUT:

A screenshot of a Python IDE window titled "IDLE Shell 3.10.5". The window shows the execution of a FizzBuzz program. The prompt is "Enter input:5". The output is "FizzBuzz", "1", "2", "Fizz", and "4". The window also displays the file path "E:\College\python\1) fizzbuzz program.py" and the Python version "Python 3.10.5 (tags/v3.10.5:f377153, Jun 6 2022, 16:14:13) [MSC v.1929 64 bit (AMD64)] on win32". The taskbar at the bottom shows the system clock as 7:57 PM on 9/14/2022.

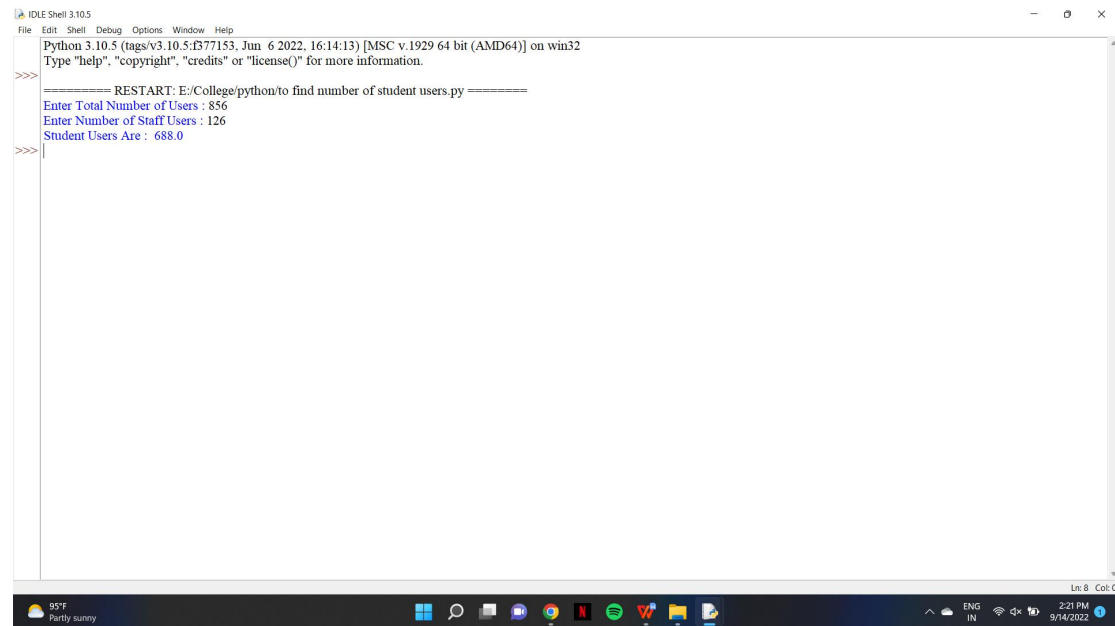
```
Python 3.10.5 (tags/v3.10.5:f377153, Jun 6 2022, 16:14:13) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\College\python\1) fizzbuzz program.py =====
>>> Enter input:5
FizzBuzz
1
2
Fizz
4
>>>
```

```

2) a=float(input("Enter Total Number of Users : "))
b=float(input("Enter Number of Staff Users : "))
c=a-b-(b//3)
print("Student Users Are : " , c)

```

OUTPUT:



```

IDLE Shell 3.10.5
Python 3.10.5 (tags/v3.10.5:f377153, Jun 6 2022, 16:14:13) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:/College/python/to find number of student users.py =====
Enter Total Number of Users : 856
Enter Number of Staff Users : 126
Student Users Are : 688.0
>>>

```

3)

```

4)def first_letter_index(str, left, right):
    index = -1
    for i in range(left, right + 1):
        if str[i] >= 'a' and str[i] <= 'z' :
            index = i
            break
    return index
def last_letter_index(str, left, right):
    index = -1
    for i in range(left, right - 1, -1) :
        if str[i] >= 'a' and str[i] <= 'z':
            index = i
            break
    return index
def solve(str):
    left = 0

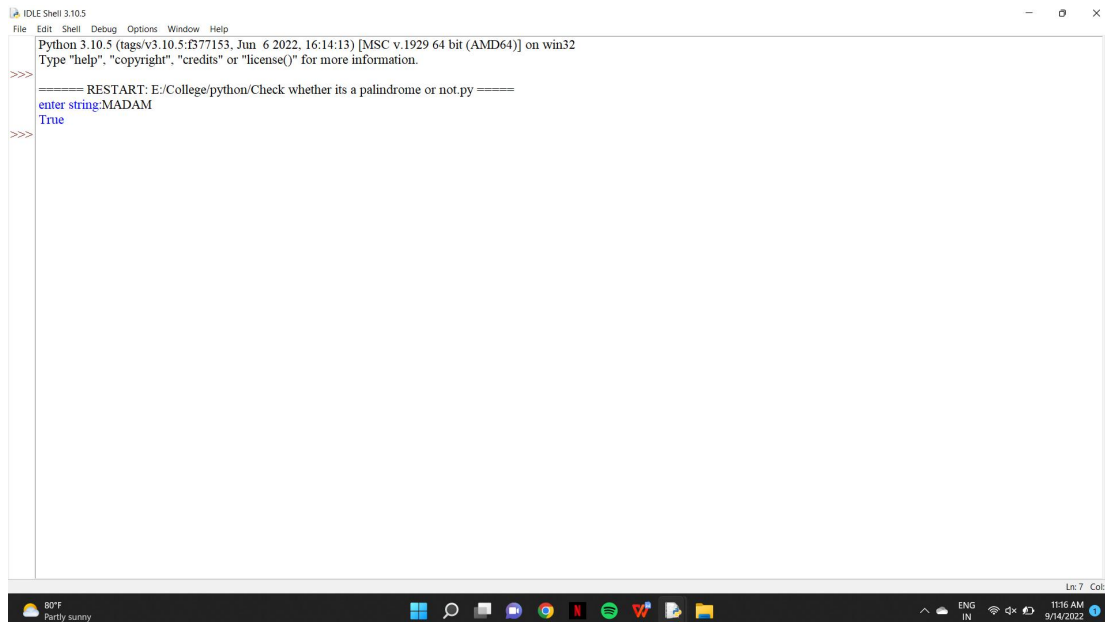
```

```

right = len(str) - 1
flag = True
for i in range(len(str)) :
    left = first_letter_index(str, left, right)
    right = last_letter_index(str, right, left)
    if right < 0 or left < 0:
        break
    if str[left] == str[right]:
        left += 1
        right -= 1
        continue
    flag = False
    break
return flag
s = input("enter string:")
print(solve(s))

```

OUTPUT:



The screenshot shows a Python IDE Shell window titled 'IDLE Shell 3.10.5'. The shell displays the following text:

```

Python 3.10.5 (tags/v3.10.5:f377153, Jun 6 2022, 16:14:13) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:/College/python/Check whether its a palindrome or not.py =====
enter string:MADAM
True
>>>

```

The window also shows a Windows taskbar at the bottom with the date and time '11:16 AM 9/14/2022'.

```

5) def minJumps(arr, l, h):
    if (h == l):
        return 0

    if (arr[l] == 0):
        return float('inf')

```

```

min = float('inf')
for i in range(l + 1, h + 1):
    if (i < l + arr[l] + 1):
        jumps = minJumps(arr, i, h)
        if (jumps != float('inf') and
            jumps + 1 < min):
            min = jumps + 1

return min
arr=eval(input("Enter list:"))
n=len(arr)
print('Minimum number of jumps to reach',
'end is', minJumps(arr, 0, n-1))

```

```

Python 3.10.5 (tags/v3.10.5:f377153, Jun 6 2022, 16:14:13) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\College\python\5) no of skips in a list.py =====
Enter list:[1,3,5,8,9,2,6,7,6,8,9]
Minimum number of jumps to reach end is 3
>>>
===== RESTART: E:\College\python\5) no of skips in a list.py =====
Enter list:[1,1,1,1,1,1,1,1,1,1]
Minimum number of jumps to reach end is 10
>>>

```

```

6) input_string = input("enter the string")
char_to_remove = input("enter the character")
newStr = ""
for character in input_string:
    if character != char_to_remove:
        newStr += character

print("The input string is:", input_string)
print("The character to delete is:", char_to_remove)
print("The output string is:", newStr)

```

OUTPUT:

Python 3.10.5 (tags/v3.10.5:f377153, Jun 6 2022, 16:14:13) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

```
>>>=====RESTART: E:/College/python/deleting character from string.py=====
enter the string:tremendous
enter the character
The input string is: tremendous
The character to delete is: t
The output string is: remendous
>>>
```

55°F Partly sunny 2:37 PM 9/14/2022

```
7) def countstrings(n, start):
    if n == 0:
        return 1
    cnt = 0
    for i in range(start, 5):
        cnt += countstrings(n - 1, i)
    return cnt
```

```
def countVowelStrings(n):
    return countstrings(n, 0)
```

```
n=int(input("enter the n value"))
print(countVowelStrings(n))
```

Python 3.10.5 (tags/v3.10.5:f377153, Jun 6 2022, 16:14:13) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

```
>>>=====RESTART: E:/College/python/count sorted vowel strings.py=====
enter the n value:6
210
>>>
```

94°F Partly sunny 2:43 PM 9/14/2022

```

8) def value(r):
    if (r == 'I'):
        return 1
    if (r == 'V'):
        return 5
    if (r == 'X'):
        return 10
    if (r == 'L'):
        return 50
    if (r == 'C'):
        return 100
    if (r == 'D'):
        return 500
    if (r == 'M'):
        return 1000
    return -1

def romanToDecimal(str):
    res = 0
    i = 0

    while (i < len(str)):

        s1 = value(str[i])

        if (i + 1 < len(str)):

            s2 = value(str[i + 1])

            if (s1 >= s2):

                res = res + s1
                i = i + 1
            else:

                res = res + s2 - s1
                i = i + 2
        else:
            res = res + s1
            i = i + 1

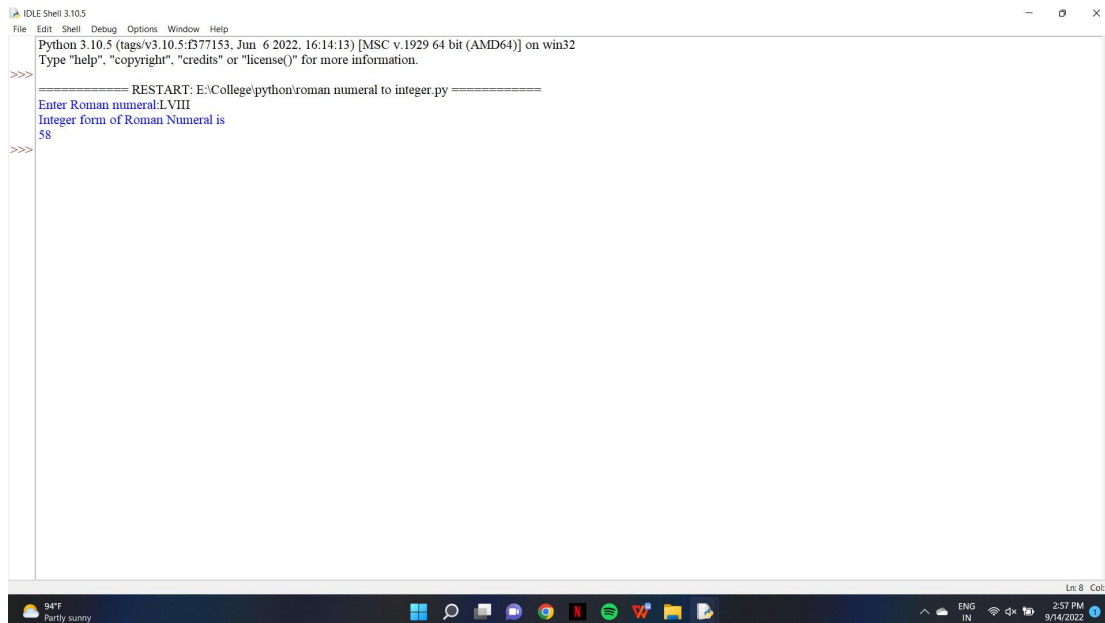
    return res

```

```

a=(input("Enter Roman numeral:"))
print("Integer form of Roman Numeral is"),
print(romanToDecimal(a))

```



```

Python 3.10.5 (tags/v3.10.5:1377153, Jun 6 2022, 16:14:13) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\College\python\roman numeral to integer.py =====
Enter Roman numeral:LXVIII
Integer form of Roman Numeral is
58
>>>

```

```

9)month = input("Input the month (e.g. January, February etc.): ")
day = int(input("Input the day: "))

```

```

if month in ('January', 'February', 'March'):
    season = 'winter'
elif month in ('April', 'May', 'June'):
    season = 'summer'
elif month in ('July', 'August', 'September'):
    season = 'spring'
else:
    season = 'autumn'

if (month == 'March') and (day > 19):
    season = 'summer'
elif (month == 'June') and (day > 20):
    season = 'summer'
elif (month == 'September') and (day > 21):
    season = 'autumn'
elif (month == 'December') and (day > 20):
    season = 'winter'

print("Season is",season)

```

```

10) def isScramble(S1: str, S2: str):
    if len(S1) != len(S2):
        return False

    n = len(S1)

    if not n:
        return True
    if S1 == S2:
        return True
    if sorted(S1) != sorted(S2):
        return False

    for i in range(1, n):
        if (isScramble(S1[:i], S2[:i]) and
            isScramble(S1[i:], S2[i:])):
            return True
        if (isScramble(S1[-i:], S2[:i]) and
            isScramble(S1[:-i], S2[i:])):
            return True
    return False

S1 = input("enter string1:")
S2 = input("enter string2:")

if (isScramble(S1, S2)):
    print("Yes")
else:
    print("No")

```



```
IDLE Shell 3.10.5
File Edit Shell Debug Options Window Help
Python 3.10.5 (tags/v3.10.5:B377153, Jun 6 2022, 16:14:13) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\College\python\scrambled strings.py =====
enter string1:abcde
enter string2:caebd
No
>>>
===== RESTART: E:\College\python\scrambled strings.py =====
enter string1:ab
enter string2:ad
No
>>>
===== RESTART: E:\College\python\scrambled strings.py =====
enter string1:a
enter string2:a
Yes
>>>|
```

Ln: 18 Col: 0

12:21 PM 9/14/2022