Coding Work-shop - 2

6) Function to print ASCII Values of String Input

I/P

Str →

| Std Library print. | → O/P |

| a→ b→ | → ASCII Value |

→ terminations of Str

| a | b | c | \0 |

read one by one
this & print.

tarjot
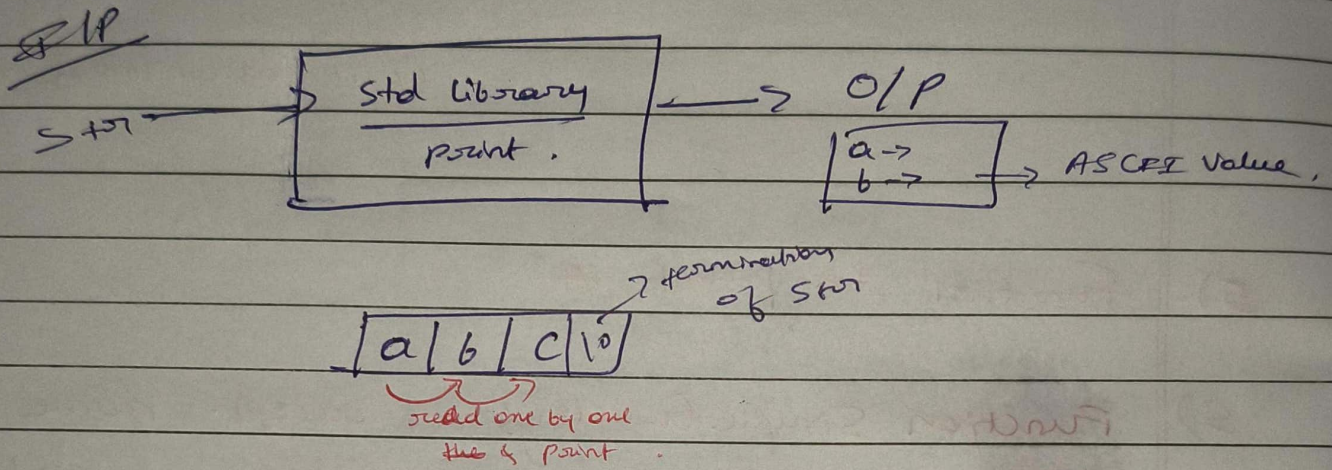
7) Function to get StrLength to get String length

| a | b | c | \0 |

→ term? of Str.
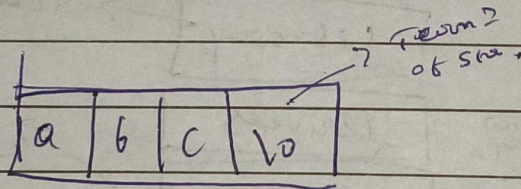
① Go over each char → loop
② counter -
③ Str

I/P

Str →

| Strlen (). Counter = 0. | → O/P |

length of string

In Integer
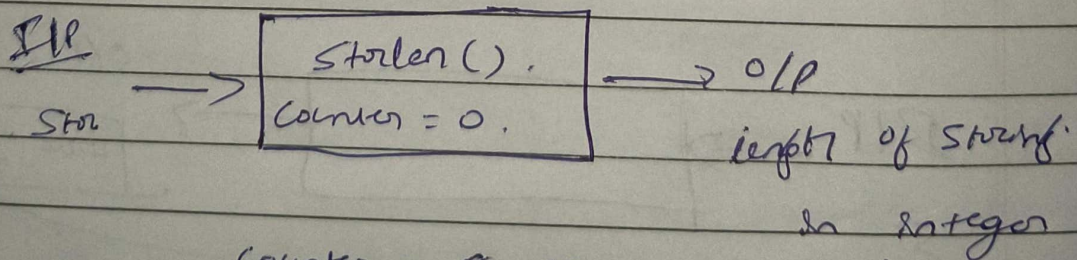
Counter = Counter + 1

or,

Counter + + ;

8) function to Count vowels get Count Of Ovewel for a given String.
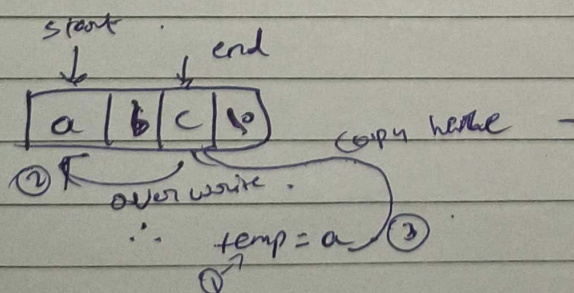
a e e o u

A E E O U

use Counter

```
I/P                 ┌─ get count of vowels ─┐         O/P
Str  ──────────────>│                       │──────>  count  ⎫  Int.
                    └───────────────────────┘         vowels ⎭
        └─> loop
        ├─> counter
        └─> If condition.
```
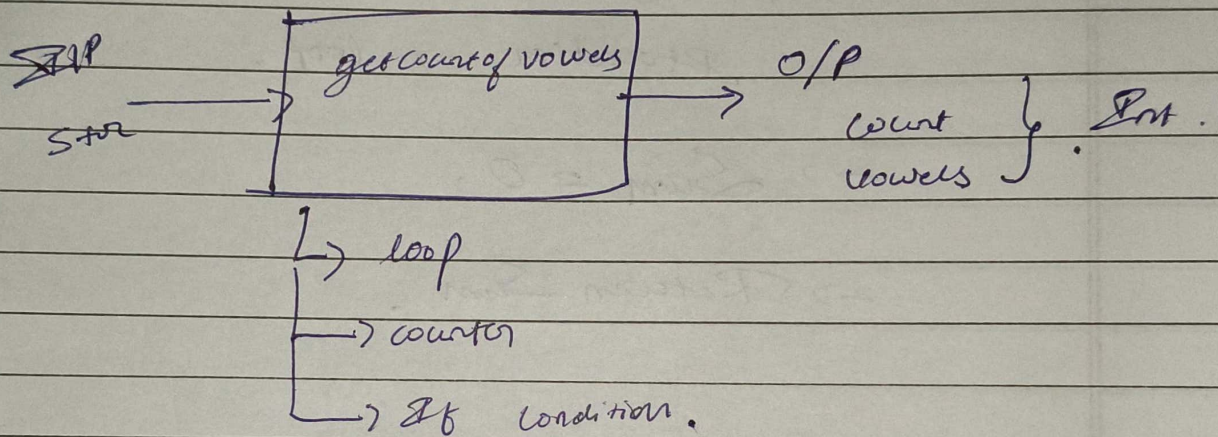
#9) Function to Reverse String reverse String

```
I/p.  [ a | b | c | \o ] .   ⎫  Inplace / change here only
                             ⎬  on      no using extra
      [ c | b | a | \o ]     ⎭  In memory         Str.
```

```
  start        end
   ↓            ↓
  [ a | b | c | \o ]      copy here  ─
  ② ←────────────         
      overwrite.
    ∴  temp = a  ③
        ①
```

10) Function to get Sum of all elements in the integer array getSum.

I/P b^2.   → O/P
Int Array   ───→   getSum   ═══⇒   Sum
                                                   (Int).
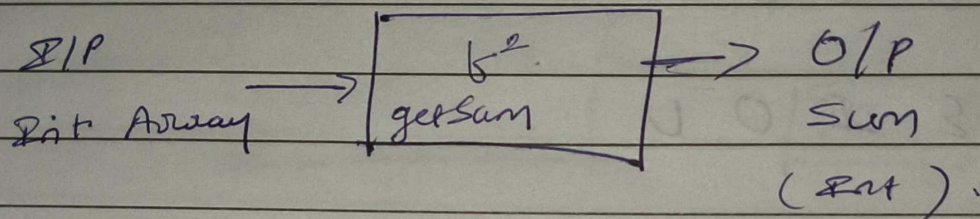
→ Read one Value at a time
    Iteration ─→ loop.

→ Sum = 0.

→ Return Sum.

```python
def printASCIIofString(string):
    for character in string:
        print(f"{character} ->{ord(character)}") #ord is ASCII value finder


printASCIIofString("raj")



def printASCIIofString2(string2):
    for character2 in string2:
        ASCII_value = ord(character2)
        print(f"{character2} ->{ASCII_value}") #ord is ASCII value finder

printASCIIofString("abc")
```

```python
def str_length(string):
    counter = 0
    for character in string:
        counter += 1

    return counter


input = "None" #None -> null     but running "None"
print(f"string length of {input} is {str_length(input)}")


input2 = ""
print(f"string length of {input2} is {str_length(input2)}")


input3 = "R"
print(f"string length of {input3} is {str_length(input3)}")


input4 = "raja"
print(f"string length of {input4} is {str_length(input4)}")
```

```python
19
20    # new for NOne  IMPORTENT
21
22    def str_length2(string2):
23        counter = 0
24        if string2 != None:
25            for character2 in string2:
26                counter += 1
27
28        return counter
29
30    input = None
31    print(f"string length of {input} is {str_length2(input)}")
32
33    input2 = ""
34    print(f"string length of {input2} is {str_length2(input2)}")
35
36    input3 = "R"
37    print(f"string length of {input3} is {str_length2(input3)}")
38
39    input4 = "raja"
40    print(f"string length of {input4} is {str_length2(input4)}")
```

3_Coding_workshop_in_python > Coding_workshop_part1 > 8_Vowels.py > count_vowels

```python
def count_vowels(string)-> int:
    counter = 0
    if string != None:
        for character in string:
            if (character == 'a' or
                character == 'e' or
                character == 'i' or
                character == 'o' or
                character == 'u' or
                character == 'A' or
                character == 'E' or
                character == 'I' or
                character == 'O' or
                character == 'U' ):

                counter +=1

    return counter
input = None
print(f"number of vowels in {input} is = {count_vowels(input)}  ")

input = "raja"
print(f"number of vowels in {input} is = {count_vowels(input)}  ")

input = "123"
print(f"number of vowels in {input} is = {count_vowels(input)}  ")
```

```python
def revers_string2(string2):

    length = len(string2)

    revers_string2 = ""
    for end in range (length-1,-1,-1):
        revers_string2 += string2[end]
    return revers_string2

name2 = "rajaa"
name2 = revers_string2(name2)
print(name2)


def reverse_string(name:str):

    if len(name) == 0:
        return name
    return reverse_string(name[1:]) + name[0]

name = "Raja"
print(reverse_string(name))
```

```python
#without range function
def getSum(numbers:list)-> int:

    sum = 0

    for number in numbers:
        sum += number

    return sum

numbers = [1,2,3]
sumOfNumbers = getSum(numbers)
print(f"sum of numbers = {sumOfNumbers}")
```

```python
15
16    #with range function
17
18    def getSum1(numbers1:list)-> int:
19        sum1 = 0
20
21        length = len(numbers1)
22
23        for index in range(0, length, 1):
24            sum1 = sum1 + numbers1[index]
25
26        return sum1
27
28    numbers1 = [1,2,3,4]
29    sumOfNumbers1 = getSum1(numbers1)
30    print(f"sum of numbers = {sumOfNumbers1}")
```