SUMANTH S

AF0363570

PYTHON LAB : 9 STRING METHODS()

1. Write a Python program to Count all letters, digits, and special symbols from the given string Input = "P@#yn26at^&i5ve"
Output: Chars = 8 Digits = 3 Symbol = 4

```
input_string = "P@#yn26at^&i5ve" # took an input string which contains all characters, digits, special characters.
letter_count = 0  #intializing letter count to 0
digit_count = 0 #initializing digit count to 0
symbol_count = 0 #initializing special count to 0
for char in input_string: # Iterate through each character in the input string
    if char.isalpha(): # Checking if the character is a letter
        letter_count += 1 # counting number of letters in a given string
    elif char.isdigit(): # Checking if the character is a digit
        digit_count += 1 # counting number of digits in a given string
    else:     # Counting special character if the given string is neither letter nor digit
        symbol_count += 1

# Printing counts of letters, Digits, special characters
print("Chars:", letter_count)
print("Digits:", digit_count)
print("Symbol:", symbol_count)
```

Output:

```
Chars: 8
Digits: 3
Symbol: 4
```

2. Write a Python program to remove duplicate characters of a given string.
Input = “String and String Function”
Output: String and Function

```
input_str = "String and String Function" # taking a string having duplicate strings.
def remove_duplicate(input_str): # defining the function as remove_duplicate
  words = input_str.split()  # spliting the given input string into words in a list.
  unique_words = [] # it displays the unique words ---> ['String','and','Function]
  seen = set() # it displays the  words in set ---> {'string','and','Function'}
  for word in words: # checking the each word by iterating using for loop
    if word not in seen: # if word is not in the set
      unique_words.append(word) # appending the word to exsisting string
      seen.add(word)
  return ' '.join(unique_words) # returns the join unique_words
output = remove_duplicate(input_str) # calling the function to display the output
print("Output: ", output)
```

Output:

Output: String and Function

3. Write a Python program to count Uppercase, Lowercase, special character and numeric values in a given string

Input = “Hell0 W0rld ! 123 * # welcome to pYtHoN”
Output:
UpperCase : 5
LowerCase : 18
NumberCase : 5
SpecialCase : 11

```
input_str = "Hell0 W0rld ! 123 * # welcome to pYtHoN" # taking input string contains uppercase, loercase, numbers & special characters
uppercase_count = 0 # initialization to 0
lowercase_count = 0
special_char_count = 0
numeric_count = 0
for char in input_str: # checking the char in input_str using iterate
  if char.isupper(): # if character is upper case
    uppercase_count += 1 # taking count for number of upper case characters present in string
  elif char.islower(): # if character is lower case
```

```
    lowercase_count += 1 # taking count for number lower case characters present in string
  elif char.isdigit(): # if character is number
    numeric_count += 1   # taking count for number of numerics present in string
  else:
    special_char_count += 1   # taking count for number of special characters present in string

# Printing the count
print("UpperCase:", uppercase_count)
print("LowerCase:", lowercase_count)
print("SpecialCase:", special_char_count)
print("NumberCase:", numeric_count)
```

Output:

```
UpperCase: 5
LowerCase: 18
SpecialCase: 11
NumberCase: 5
```

4. Write a Python Count vowels in a string
input= “Welcome to Python Assignment”
Output: Total vowels are: 8

```
input_string= "Welcome to Python Assignment" # took an input string to check number of vowels present in it.
vowels = "aAeEiIoOuU" # declared the vowels ---> " A, E, I, O, U, a, i,e, o, u"
vowel_count = 0 # initialization the vowel count to 0
for char in input_string: # checking each character with input_string using for loop
  if char in vowels: # checking if the character is present in vowel
    vowel_count += 1 # taking the count of the vowels present in the given String
print("Total vowels are:",vowel_count)
```

Output:

```
Total vowels are: 8
```