

Python programming

Lab:- 9(String Method)

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1. Write a Python program to Count all letters, digits, and special symbols from the given string

Input = "P@#yn26at^&i5ve"

Program :-

```
labassignment9.py > ...
1  # 1. Write a python program to count all the letters,digits and special symbols from the given string
2  # Input = "P@#yn26at^&i5ve"
3
4  input_string = "P@#yn26at^&i5ve"
5  chars = sum(c.isalpha() for c in input_string)
6  digits = sum(c.isdigit() for c in input_string)
7  symbols = len(input_string) - chars - digits
8
9  print(f"Chars = {chars}, Digits = {digits}, Symbols = {symbols}")
10
11
```

Output:-

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  TEST RESULTS  PORTS
PS C:\Users\Raj Kumar\Desktop\python programming> & "C:/Users/Raj Kumar/AppData/Local/Programs/Python/Python312/python.exe" "c:/Users/Raj Kumar/Desktop/python programming/labassignment9.py"
Chars = 8, Digits = 3, Symbols = 4
PS C:\Users\Raj Kumar\Desktop\python programming>
```

2. Write a Python program to remove duplicate characters of a given string.

Input = "String and String Function"

```
# 2. Write a python program to remove duplicate characters of a given string.
# Input = "String and string function"

input_string = "String and String Function"
output_string = ''.join(sorted(set(input_string), key=input_string.index))

print(f"Output: {output_string}")
```

Output:-

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  TEST RESULTS  PORTS

PS C:\Users\Raj Kumar\Desktop\python programming> & "C:/Users/Raj Kumar/AppData/Local/Programs/Python/Python312/python.exe" "c:/Users/Raj Kumar/Desktop/python programming/labassignment9.py"
Output: String adFuo
PS C:\Users\Raj Kumar\Desktop\python programming>
```

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

Input = "Hello W0rld ! 123 * # welcome to pYtHoN"

Program:-

```
#3. Write a python program to count uppercase, lowercase, special character and numeric values in a given string
# Input= "Hello W0rld ! 123 * # welcome to pYtHoN"

input_string = "Hello W0rld ! 123 * # welcome to pYtHoN"
uppercase_count = sum(c.isupper() for c in input_string)
lowercase_count = sum(c.islower() for c in input_string)
number_count = sum(c.isdigit() for c in input_string)
special_count = len(input_string) - uppercase_count - lowercase_count - number_count

print(f"Uppercase: {uppercase_count}, Lowercase: {lowercase_count}, Numbers: {number_count}, Special Characters: {special_count}")
```

Output:-

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  TEST RESULTS  PORTS

PS C:\Users\Raj Kumar\Desktop\python programming> & "C:/Users/Raj Kumar/AppData/Local/Programs/Python/Python312/python.exe" "c:/Users/Raj Kumar/Desktop/python programming/labassignment9.py"
Uppercase: 5, Lowercase: 18, Numbers: 5, Special Characters: 11
PS C:\Users\Raj Kumar\Desktop\python programming>
```

4. Write a Python Count vowels in a string

input= "Welcome to Python Assignment"

program:-

```
# 4. Write a Python Count vowels in a string
# input= "Welcome to Python Assignment"

input_string = "Welcome to Python Assignment"
vowels = set("aeiouAEIOU")
vowel_count = sum(1 for c in input_string if c in vowels)
|
print(f"Total vowels are: {vowel_count}")
```

Output:-

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  TEST RESULTS  PORTS

PS C:\Users\Raj Kumar\Desktop\python programming> & "C:/Users/Raj Kumar/AppData/Local/Programs/Python/Python312/python.exe" "c:/Users/Raj Kumar/Desktop/python programming/labassignment9.py"
Total vowels are: 8
PS C:\Users\Raj Kumar\Desktop\python programming>
```