

Lab Program 3:

AIM: Demonstration of manipulation of strings using string methods

a) Write a Python program that accepts a sentence and find the number of words, digits, uppercase letters and lowercase letters.

```
s = input("Enter a sentence: ")
w, d, u, l = 0, 0, 0, 0
l_w = s.split()
w = len(l_w)
for c in s:
    if c.isdigit():
        d = d + 1
    elif c.isupper():
        u = u + 1
    elif c.islower():
        l = l + 1

print ("No of Words: ", w)
print ("No of Digits: ", d)
print ("No of Uppercase letters: ", u)
print ("No of Lowercase letters: ", l)
```

OUTPUT:

Case 1:

```
Enter a sentence: Artificial Intelligence & Machine Learning 2021
No of Words: 6
No of Digits: 4
No of Uppercase letters: 4
No of Lowercase letters: 33
```

Case 2:

```
Enter a sentence: WEelcome to Python Class 21CSL46
No of Words: 5
No of Digits: 4
No of Uppercase letters: 7
No of Lowercase letters: 16
```

b) Write a Python program to find the string similarity between two given string.

```
import difflib
def string_similarity(str1, str2):
    result = difflib.SequenceMatcher(a=str1.lower(), b=str2.lower())
    return result.ratio()
str1 = input("Enter First string")
str2 = input("Enter Second string")
print("Original string:")
print(str1)
print(str2)
print("Similarity between two said strings:")
print(string_similarity(str1,str2))
```

OUTPUT:

```
Original string:
Python Exercises
Python Exercises
Similarity between two said strings:
1.0
```

```
Original string:
Python Exercises
Python Exercise
Similarity between two said strings:
0.967741935483871
```

```
Original string:
Python Exercises
Python Ex.
Similarity between two said strings:
0.6923076923076923
```

```
Original string:
Python Exercises
Python
Similarity between two said strings:
0.5454545454545454
```

```
Original string:
Java Exercises
Python
Similarity between two said strings:
0.0
```