

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

```
sentence = input("Enter a sentence : ")
wordList = sentence.split(" ")
print("This sentence has", len(wordList),"words")
digCnt = upCnt = loCnt = 0
for ch in sentence:
    if '0' <= ch <= '9':
        digCnt += 1
    elif 'A' <= ch <= 'Z':
        upCnt += 1
    elif 'a' <= ch <= 'z':
        loCnt += 1
print("This sentence has", digCnt, "digits", upCnt, "upper case letters", loCnt, "lower case letters")
```

Output:

Enter a sentence : SMVITM Bantakal 2023

This sentence has 3 words

This sentence has 4 digits 7 upper case letters 7 lower case letters

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

```
str1 = input("Enter String 1 \n")
str2 = input("Enter String 2 \n")
if len(str2) < len(str1):
    short = len(str2)
    long = len(str1)
else:
    short = len(str1)
    long = len(str2)
matchCnt = 0
for i in range(short):
    if str1[i] == str2[i]:
        matchCnt += 1
print("Similarity between two said strings:")
print(matchCnt/long)
```

Output:

Enter String 1 GOOD MORNING

Enter String 2 GOOD EVENING

Similarity between two said strings:0.75

Enter String 1 GOOD MORNING

Enter String 2 GOOD MORNING

Similarity between two said strings:1.0