

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

**Aim:** Demonstration of manipulation of strings using string methods.

```
def count_characters(sentence):
    words = sentence.split()
    num_words = len(words)

    num_digits = 0
    num_uppercase = 0
    num_lowercase = 0

    for word in words:
        for char in word:
            if char.isdigit():
                num_digits += 1
            elif char.isupper():
                num_uppercase += 1
            elif char.islower():
                num_lowercase += 1
    return num_words, num_digits, num_uppercase, num_lowercase

user_sentence = input(" Enter a sentence: ")
word_count, digit_count, uppercase_count, lowercase_count
=count_characters(user_sentence)

print("Number of words:", word_count)
print("Number of digits:", digit_count)
print("Number of uppercase letters:", uppercase_count)
print("Number of lowercase letters:", lowercase_count)
```

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## OUTPUT

**Enter a sentence: Welcome to SJMIT College 1**

Number of words: 5  
Number of digits: 1  
Number of uppercase letters: 7  
Number of lowercase letters: 14

**Enter a sentence: Data Visualization with Python**

Number of words: 4  
Number of digits: 0  
Number of uppercase letters: 3