

Experiment 5 :

Aim :- Write a Program to count the occurrences of each word in a given string sentence.

Theory:-

A string is a data structure in Python that represents a sequence of characters. It is an immutable data type, meaning that once you have created a string, you cannot change it. Strings are used widely in many different applications, such as storing and manipulating text data, representing names, addresses, and other types of data that can be represented as text.

Example:

```
s = 'hi'
print s[1]      # i
print len(s)    # 2
print s + ' there' # hi there
```

String Methods

Here are some of the most common string methods. A method is like a function, but it runs "on" an object. If the variable `s` is a string, then the code `s.lower()` runs the `lower()` method on that string object and returns the result (this idea of a method running on an object is one of the basic ideas that make up Object Oriented Programming, OOP). Here are some of the most common string methods:

- `s.lower()`, `s.upper()` -- returns the lowercase or uppercase version of the string
- `s.strip()` -- returns a string with whitespace removed from the start and end
- `s.isalpha()`/`s.isdigit()`/`s.isspace()`... -- tests if all the string chars are in the various character classes
- `s.startswith('other')`, `s.endswith('other')` -- tests if the string starts or ends with the given other string
- `s.find('other')` -- searches for the given other string (not a regular expression) within `s`, and returns the first index where it begins or -1 if not found
- `s.replace('old', 'new')` -- returns a string where all occurrences of 'old' have been replaced by 'new'
- `s.split('delim')` -- returns a list of substrings separated by the given delimiter. The delimiter is not a regular expression, it's just text. `'aaa,bbb,ccc'.split(',')` -> `['aaa', 'bbb', 'ccc']`. As a convenient special case `s.split()` (with no arguments) splits on all whitespace chars.
- `s.join(list)` -- opposite of `split()`, joins the elements in the given list together using the string as the delimiter. e.g. `'---'.join(['aaa', 'bbb', 'ccc'])` -> `aaa---bbb---ccc`

Python Program to count the occurrences of each word in a given string sentence.

The program takes a string and counts the occurrence of each word in the given sentence.

Problem Solution

1. Take a string and a word from the user and store it in separate variables.
2. Initialize a count variable to 0.
3. Split the string using space as the reference and store the words in a list.
4. Use a for loop to traverse through the words in the list and use an if statement to check if the word in the list matches the word given by the user and increment the count.
5. Print the total count of the variable.
6. Exit.