

Experiment 2 #A

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Aim: Write a python program to input a multiline string or a paragraph & count the no. of words & characters in string. Also check for a substring & replace each of its occurrences by some other string.

Theory:

Small anonymous functions can be created with the `lambda` keyword. This function returns the sum of its two arguments: `lambda a, b: a+b`. Lambda functions can be used wherever function objects are required. They are syntactically restricted to a single expression. Semantically, they are just syntactic sugar for a normal function definition. Like nested function definitions, lambda functions can reference variables from the containing scope.

The `del` statement can be used to delete an item at a given index. Also, it can be used to remove slices from a list.

The `sum()` function adds the items of an iterable and returns the sum.

The `extend()` method adds all the elements of an iterable (list, tuple, string etc.) to the end of the list.

The `replace()` function as well as the `sub()` and `subn()` functions with patterns to replace all occurrences of a substring from a string.

Code:

```
lines = []
#Getting multi-line input from the user
while True:
    line = input()
    if line:
        lines.append(line)
    else:
        break
text = '\n'.join(lines)
print('-'*80)
print(text)

# word count
total_char = 0          #total char
total_w = 1             #total words
for i in range(len(text)):
    if(text[i] == ' ' or text[i] == '\n'):
        total_w += 1
print("Total no. of words: ",total_w)

#char count
for j in range(len(text)):
    total_char += 1
print("The total number of characters: ",total_char)

# print("Final list: ",lines)

# Driver Code
x = input("Enter the word you wanna replace: ")

def countX(text, x):
    return text.count(x)

#occurance count

print('{} has occurred {} times: '.format(x, countX(text, x)))

print("-----The new string after occurrence-----")

string_replace = text.replace("Python", "Java")

print(string_replace)
```

Output:

```
Console 3/A x
In [8]: runcell(0, 'C:/Users/jkfra/Desktop/Py-Labs/Exp-2b.py')

Python is a high-level programming language. Python is very easy to learn the language as compared to
other languages like C, C#, Javascript etc. It is very easy to code in python language and anybody can
learn python basics in a few hours or days. It is also a developer-friendly language.

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other languages like C, C#, Javascript etc. It is very easy to code in python language and anybody can
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Total no. of words: 51
The total number of characters: 290

Enter the word you wanna replace: Python
Python has occurred 2 times:
-----The new string after occurrence-----
Java is a high-level programming language. Java is very easy to learn the language as compared to other
languages like C, C#, Javascript etc. It is very easy to code in python language and anybody can learn
python basics in a few hours or days. It is also a developer-friendly language.

In [9]:
```

Conclusion:

In this experiment we have successfully compiled and used advanced data types to execute and implement our programs.