

ASSIGNMENT 4.2

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1. Introduction

This assignment will help you to consolidate the concepts learnt in the session.

2. Problem Statement

Problem Statement 1:

Write a Python program using function concept that maps list of words into a list of integers representing the lengths of the corresponding words .

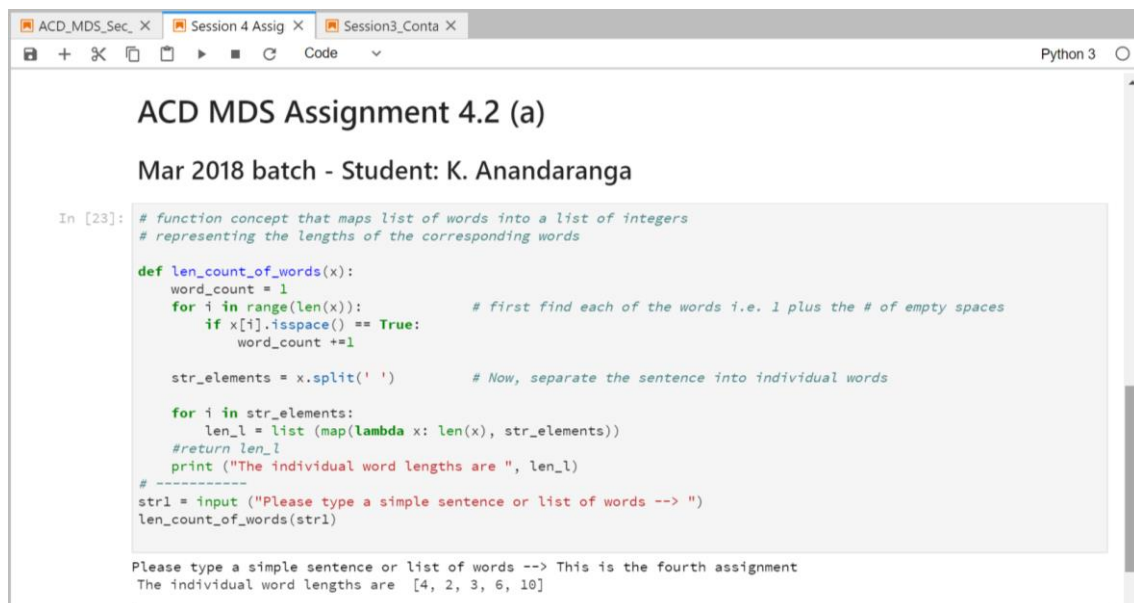
Hint: If a list [ab,cde,erty] is passed on to the python function output should come as [2,3,4]
Here 2,3 and 4 are the lengths of the words in the list.

Problem Statement 2:

Write a Python function which takes a character (i.e. a string of length 1) and returns True if it is a vowel, False otherwise.

3. Output

Solution to problem #1:



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ACD_MDS_Sec_ X Session 4 Assig X Session3,Conta X
Python 3

ACD MDS Assignment 4.2 (a)
Mar 2018 batch - Student: K. Anandaranga

In [23]: # function concept that maps list of words into a list of integers
# representing the lengths of the corresponding words

def len_count_of_words(x):
    word_count = 1
    for i in range(len(x)):
        if x[i].isspace() == True:
            word_count +=1

    str_elements = x.split(' ')
    for i in str_elements:
        len_l = list (map(lambda x: len(x), str_elements))
    #return len_l
    print ("The individual word lengths are ", len_l)
# -----
str1 = input ("Please type a simple sentence or list of words --> ")
len_count_of_words(str1)

Please type a simple sentence or list of words --> This is the fourth assignment
The individual word lengths are  [4, 2, 3, 6, 10]
```

Solution to Problem #2:



The screenshot shows a Jupyter Notebook window with three tabs: 'ACD_MDS_Sec_ X', 'Session 4 Assig', and 'Session3_Conta X'. The 'Session 4 Assig' tab is active. The notebook title is 'ACD MDS Assignment 4.2 (b)' and the student is 'Mar 2018 batch - Student: K. Anandaranga'. The code cell contains a Python function 'check_vowel(x)' that checks if a character is a vowel. The function uses a list of vowels: ['a', 'e', 'i', 'o', 'u', 'A', 'E', 'I', 'O', 'U']. The code prompts the user to enter a single character and prints the result. The output shows the user entered 'a' and the function returned 'True'.

```
In [50]: # Write a Python function which takes a character (i.e. a string of length 1) and
# returns True if it is a vowel, False otherwise.

def check_vowel(x):
    if str(x) in ['a', 'e', 'i', 'o', 'u', 'A', 'E', 'I', 'O', 'U']: # list the vowels for upper and lower case
        return True
    else:
        return False

# -----
vowel = input ("Please key in any single character --> ")
if len(vowel)>1:
    vowel = input ("Please key in any single character (only length = 1) --> ")

ans = check_vowel (vowel)
print (ans)

Please key in any single character --> a
True
```