#### **ASSIGNMENT 3.3**

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# 1. Introduction

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

### 2. Problem Statement

Implement a function longestWord() that takes a list of words and returns the longest one.

### 3. Output

```
■ Session3_Practi X
■ session2_String X
■ Session 3 self p X
■ ACD_MDS_Sec_ ●
■ Session 2 - Self X
                                   Code
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                                                                                                                                      Python 3
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    In [137]: # Function longestWord() that takes a list of words and returns the longest one.
strl = input ("Please type a simple sentence --> ")
               longestWord (strl)
               def longestWord(x):
    word_list_length = []
                    word_count = 1
                   for i in range(len(strl)):
    if strl[i].isspace() == True:
                                                            # first find each of the words i.e. 1 plus the # of empty spaces
                            word_count +=1
                   str_elements = strl.split(" ")
                                                             # Now, separate the sentence into individual words
                        for i in str_elements:
                            word_list_length.append (word_lengths)
                            word_lengths = len(i)
                            word_list_length.append (word_lengths)
                    print ("Words and their lengths are ")
                   for i in range (word_count):
    print (str_elements[i],"-->", word_list_length[i])
                   max_value = max(word_list_length) # find the max word length
                   longest_word= [] # Pick all the words if more than one share the top spot
                   for i in str_elements:
    if len(i) == max_value:
        longest_word.append (i)
"The longest word(s) is/are: {} of length {}".format (longest_word, max_value)|
              Please type a simple sentence --> hello world great to see you
               Words and their lengths are hello --> 5
               world --> 5
               great --> 5
               see --> 3
               The longest word(s) is/are: ['hello', 'world', 'great'] of length 5
```