

Question 1: -Write a program that takes a string as input, and counts the frequency of each word in the string, there might be repeated characters in the string. Your task is to find the highest frequency and returns the length of the highest-frequency word.

**Note** - You have to write at least 2 additional test cases in which your program will run successfully and provide an explanation for the same.

Example input - string = "write write write all the number from from from 1 to 100"

Example output - 5

Explanation - From the given string we can note that the most frequent words are "write" and "from" and the maximum value of both the values is "write" and its corresponding length is 5

**Ans:**

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In [4]: def find_highest_frequency_word_length(string):
        words = string.split()

        word_freq = {}

        for word in words:
            word_freq[word] = word_freq.get(word, 0) + 1

        max_freq = 0
        max_length = 0
        for word, freq in word_freq.items():
            if freq > max_freq or (freq == max_freq and len(word) > max_length):
                max_freq = freq
                max_length = len(word)

        return max_length

#Example test case

string = "write write write all the number from from from 1 to 100"
result = find_highest_frequency_word_length(string)
print(result)

# Example output - 5

# Explanation: In the given example, the word "write" appears three times, making it the most frequent word. I

# Additional Test Cases:

# Test case with a single word repeated multiple times:

string = "hello hello hello hello hello"
result = find_highest_frequency_word_length(string)
print(result)

# Explanation: In this case, the word "hello" appears five times, which is the highest frequency. Its length i

# Test case with different words having the same frequency:

string = "apple orange banana apple orange banana apple orange banana"
result = find_highest_frequency_word_length(string)
print(result)

# Explanation: In this case, the words "apple," "orange," and "banana" appear three times each, making their f

5
5
6
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In [ ]: