S.No: 27	Exp. Name: ***Find the total number of words***	Date:2024-10-24

Aim:

You are given a paragraph of text, and your task is to count the number of words in the given paragraph. A word is defined as a sequence of alphabetic characters (a-z, A-Z) and words are separated by spaces or non-alphabetic characters.

You need to write a program in C that will:

- Take a paragraph of text as input.
- Count the number of words in the paragraph.
- Print the total number of words in the paragraph.

Input Format:

- A single-line input first displays the prompt:

```
Enter a paragraph:
```

Where the user then types a paragraph of text (up to 1000 characters, including spaces and punctuation).

Output Format:

- The program should output a single integer representing the total number of words in the paragraph in the format:

```
Total words: <no of words>
```

- where <no of words> is the count of words in the paragraph.

Note:

- Refer to visible test cases for better understanding and to strictly match with the input/output layout.

Source Code:

total_words.c

```
#include<stdio.h>
#include<string.h>
#include<ctype.h>
#define MAX_PARAGRAPH_LENGTH 500
int main(){
   char paragraph[MAX_PARAGRAPH_LENGTH];
   int word_count = 0;
   int i;
   printf("Enter a paragraph: ");
   fgets(paragraph, sizeof(paragraph), stdin);
   paragraph[strcspn(paragraph, "\n")] = '\0';
   int in_word = 0;
   for (i = 0; paragraph[i] != '\0'; i++)
      {
         if (isspace(paragraph[i]))
         {
            in_word = 0;
         }
```

```
        else
        {
           if (in_word == 0)
           {
              word_count++;
              in_word = 1;
           }
        }
     }
   printf("Total words: %d\n", word_count);
   return 0;
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter a paragraph: Hi Hello good morning!!
Total words: 4

Test Case - 2
User Output
Enter a paragraph: Twinkle Twinkle little star, how i wonder what you are, up above the wo
Total words: 16