Structural Testing

Class: UnitTestImpl

Method: int example(String inputText)

Functionality:

      This method counts the number of multiple contiguous space substrings in a given string.

Explanation:

      First foundSpace and multiple is initiated with false and result is set to 0. Then we check whether the first character is a space,

- If the first character is a space then foundSpace is set to true.
- If the first character is not a space then we check if both foundSpace and multiple is true, if so result is incremented and foundSpace and multiple is set to false.

The problem with the above implementation is that result is incremented only when a character is found. If there are multiple spaces without any characters that is an empty string then the count of result remains 0. Also if there are multiple spaces at the end of the sentence, it will also be discarded.

Possible input values:

      A string value is given as input. The possible input values are multiple contiguous spaces in the beginning of the string, at the end, in between. A string with no multiple contiguous spaces, a string with no spaces and an empty string can also be given as an input.

Expected Output:

- **Multiple contiguous spaces in the beginning of the string:** Should count the multiple contiguous spaces from the beginning of the string and return the count as 1.
- **Multiple contiguous spaces at the end of the string:** Should count the multiple contiguous spaces from the end of the string and return the count as 1.
- **Multiple contiguous spaces in between the string:** Should count the multiple contiguous spaces from the string and return its count.
- **String with no multiple contiguous spac**es**:** Should return the count as 0 since there are no multiple contiguous spaces.

- **String with no spaces:** Should return the count as 0 since there are no multiple contiguous spaces.
- **An empty string with multiple contiguous spaces**: Should count the multiple contiguous spaces from the string and return 1 as the count.

Conclusion:

There are two scenarios that are not handled by this implementation, namely:

- If there are multiple contiguous spaces at the end of the string it is not being counted.
- If there are multiple contiguous spaces in an empty string it is not being counted.

Since these two scenarios are not handled, this implementation cannot be accepted.