Class Exercise:

String Operations

In this exercise, we will create a program that performs various string operations to analyze a given text. We will use string methods and functions to manipulate the text, count occurrences of specific words, and find the most frequent word in the text.

Your task is to write the code that performs the following string operations:

1. Find the length of the given text.
2. Convert the text to lowercase.
3. Count the number of occurrences of a specific word in the text.
4. Find the most frequent word in the text.

Once you have completed the code, test it by analyzing the provided text.

text = "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Mauris euismod gravida libero, in cursus mauris hendrerit sit amet. Integer sit amet volutpat tellus. Nulla facilisi. Donec tristique scelerisque est, non varius nunc ullamcorper ut. Phasellus non elit lorem. Sed suscipit elit vitae pulvinar lobortis. Curabitur quis risus non dolor luctus consectetur eu vitae tellus. Sed bibendum neque ac vestibulum elementum. Phasellus vehicula felis a sem cursus, a congue ligula consectetur. Mauris eu tincidunt magna, a consequat nibh. Nulla feugiat tellus et nisl egestas, a consectetur lacus iaculis. Maecenas nec magna quis risus laoreet mattis sed ut velit. Cras tempor id tellus a aliquet."

# Find the length of the text

# Your code here

# Convert the text to lowercase

# Your code here

# Count the occurrences of a specific word

# Your code here

# Find the most frequent word in the text

# Your code here

Length of the text: 622

Lowercase text:

lorem ipsum dolor sit amet, consectetur adipiscing elit. mauris euismod gravida libero, in cursus mauris hendrerit sit amet. integer sit amet volutpat tellus. nulla facilisi. donec tristique scelerisque est, non varius nunc ullamcorper ut. phasellus non elit lorem. sed suscipit elit vitae pulvinar lobortis. curabitur quis risus non dolor luctus consectetur eu vitae tellus. sed bibendum neque ac vestibulum elementum. phasellus vehicula felis a sem cursus, a congue ligula consectetur. mauris eu tincidunt magna, a consequat nibh. nulla feugiat tellus et nisl egestas, a consectetur lacus iaculis. maecenas nec magna quis risus laoreet mattis sed ut velit. cras tempor id tellus a aliquet.

Occurrences of 'consectetur' in the text: 4

Most frequent word in the text: amet.