

Exam #2

For this assignment, you will write a program that uses a method called ***displayMenu*** to display a menu like the following:

Enter 1 to convert a string to uppercase

Enter 2 to convert a string to lowercase

Enter 3 to count the number of words in a string

Enter 4 to count the number of vowels in a string

Enter 5 to exit

After the user enters their ***choice***, ask them to enter the string. Call the variable ***user_string***, and use the `len()` method to prevent the user from entering an empty string. The user should enter a new string every time they make another choice. The program should loop until the user enters 5 to exit. Use the `format()` method to concatenate the output for display after each choice. The display should show the user's original string and the result of their choice in a neat and meaningful manner.

For choice 1, use the `upper()` method to convert the string to uppercase. For choice 2, you should use the `lower()` method. For choice 3, use the `split()` method to split the string on spaces and store it in a list called ***user_list***. Use the `len()` method to get the length of the list. For choice 4 you will need to create a variable called ***count*** to store the number of vowels in. You will need to make sure that you count upper and lowercase vowels by using the `upper()` or `lower()` method. Use a variable called ***vowels*** to store the vowels in. You will need a for loop to iterate through the user's string and examine each character to determine exactly how many vowels are contained in the string. Inside of the for loop, use an if statement that contains the `find()` method to check for the characters contained in the vowels variable in the user's string.