

Strings – Assignment 11

Create a separate button for Parts A, B, C and D. All output should be displayed in a listbox.

Part A

Create an application that prompts the user to enter a word in a text box. In a listbox, return the first letter of the word, the length of the word and the 3rd letter of the word.

Example: If the user enters the word *computer*, the output should be:

The first letter is c

The length of the word is 8 characters

The 3rd character is m

Part B

Letter Count

The application prompts the user to enter a word and a letter to search for. The program counts and displays the number of times the letter appears in the word.

Example: If the user enters the word *Mississippi* and the letter *i*, the output should be:

There are 4 i's in the word Mississippi

Part C

Reverse a Word

Create an application that prompts the user to input a word and returns the name in reverse order and in lowercase letters. The program should also state whether or not the word is a palindrome.

Example: If the user enters the word *happy* the output should be:

happy reversed is yppah – this is not a palindrome

Part D

Count Vowels

Create an application that prompts the user to enter a word. The program counts and displays the number of vowels found in the word. (a, e, i, o, u and y if it's the final letter of a word).

Example: If the user enters the word *happy* the output should be:

The word happy has 2 vowels

String Class Notes

Char represents a **single** character
String represents a set of characters

Quotation marks are required to assign a value to a character or a string variable

```
Dim letter As Char
letter = "B"

Dim word As String
word = "Today is Friday."
```

Data returned from a Textbox is always a string

```
Dim Name As String
Name = textbox1.text

Dim Name As String
Name = "Tom Smith"
textbox1.text = name
```

The position of a character in a string is referenced by its index

Index:	0	1	2	3	4
String:	H	A	P	P	Y

.Char (*index*) returns the character in the specified location

```
word = "HAPPY"
Letter = word.char(1) ` returns the character at the index of 1: A
```

Substring - a sequence of consecutive characters taken from a string.

.Substring(*startpos, numberOfCharacters*) returns a substring of characters taken from the string

```
word = "HAPPY"
subby = word.substring(1, 3) `returns 3 characters starting at the index
of 1: APP
```

Empty string can be represented as ""

.Length() returns the length of the string (the number of character in the string)

```
word = "HAPPY"
length = word.length( ) ` return a 5
```