

Orasi Monthly Code Challenge

Silver League



June 2013

Challenge Submitted by:

Matt Watson

Challenge Winner:

Cynthia Cali

June 2013 Orasi Code Challenge - Silver

Challenge Description

The ability to parse through large amounts of data is a crucial skill for any coder to have. One of the most important practices in parsing data is string manipulation. VBScript has several string manipulation functions built in that will allow the user to add, remove, shorten and break apart strings. The silver league coding challenge is to use string manipulation functions to find the most frequently occurring letter in a paragraph of text

Submission Requirements:

Your submission must be in the form of a VBScript function that can run inside QTP. The function should accept one argument (a string holding the paragraph) and return a string showing the most frequently used letter and the count of how many times that letter was used. This string should be in the format of the letter first immediately followed by the number of times it occurred in the paragraph. An example return value would be "a45" showing that the letter "a" was the most frequently occurring and it was found 45 times. Any variation from this format will result in having not completed the challenge. This function must comply with Orasi Coding Standards. You will be allowed 5 minutes of execution time to accomplish this task. Anyone who successfully returns the correct string will be considered to have completed the challenge. A winner will be announced based on conformity to coding standards, efficiency, and creativity.

Winning Solution:

```
''*****
```

```
'Function Name      strMaxChar
'Author:            Cynthia Cali
'Created Date:      6/21/2013
'Purpose:           Read a string and return a string indicating the most used character
'                  and number of times that character appeared in the input string
'
'Prerequisites:     Required argument 'strInput' - must be variable type 'string'.
'Returns:           String in format of the letter(s) first immediately followed by the number of '
'                  times it occurred in the paragraph
'                  0 for no values found.
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'Change History:
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''*****
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Function strMaxChar(strInput)

'Variable Declaration

Dim aCount(26)

Dim Alphabet

Dim Character

Dim CharIndex

Dim Index

Dim Max

Dim Pos

Dim Text

'Variable Assignment

Alphabet = "abcdefghijklmnopqrstuvwxyz"

Max = 0

'Process

Trim spaces and convert to lowercase

Text= Lcase(trim(strInput))

'Get each character from the string and count it

For CharIndex =1 To Len(Text)

Character = Mid(Text,CharIndex,1)

'Locate position of the character in the Letter string

Pos = instr(1,Alphabet,Character)

'If the character was found, increment the count for that letter in the aCount

array

If Pos>0 Then

aCount(pos) = aCount(Pos) + 1

End If

Next

'Search the aCount array for the highest value

For Index = 1 to 26

If (aCount(Index) > Max) Then

Max = aCount(Index)

```

End If
Next

If Max > 0 Then
    'There could be more than one letter with the maximum count so we will read back
    through the array to make sure we list
    'each letter that occurs the most often
    Character = ""
    For Index = 1 to 26
        If aCount(Index) = Max Then
            Character = Character & chr(96 + Index)
        End If
    Next

    'Assign most used character and number of times used to the return value
    strMaxChar = Character & Max

Else
    'If the Max is 0 then return 0 count for the most used character
    strMaxChar = 0
End If

End Function

```