

# **Assignment #4 - String Parsing and Arrays**


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**COURSE NAME: STRUCTURED PROGRAMMING**

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1 'AKSHAY PHILIP THOMAS,PROG8240,Structured Programming, STUDENT NO: 8795161
2 Public Class Form1
3     ' declare the no of parts as integer for an array in global variable
4     Dim arparts() As Integer = {355, 840, 906, 498, 222, 750, 672, 888, 1234, 1066, 567, 789}
5     Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
6         'declare array and variables
7         Dim myarray() As String
8         Dim textvariable As String
9         textvariable = CStr(txtArray.Text)
10
11         'split the text into array
12         myarray = textvariable.Split(",")
13         LblResults.Text = ""
14
15         'using the for loop finding the convert lower case into upper case
16         For i As Integer = 0 To myarray.GetUpperBound(0)
17             myarray(i) = myarray(i).ToUpper
18
19         Next
20
21         'display the result in the label box
22         For i As Integer = 0 To myarray.GetUpperBound(0)
23             LblResults.Text &= myarray(i) & ", "
24
25         Next
26     End Sub
27
28     Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
29         'declare array and variables
30         Dim myarray() As String
31         Dim textvariable As String
32         textvariable = CStr(txtArray.Text)
33
34         myarray = textvariable.Split(",")
35         LblResults.Text = ""
36
37         'display the results in the label box
38         LblResults.Text = myarray(1)
39     End Sub
40
41     Private Sub Button3_Click(sender As Object, e As EventArgs) Handles Button3.Click
42         'declare array and variables
43         Dim myarray() As String
44         Dim textvariable, firstname, lastname As String
45         Dim m, n, x, y As Integer
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46     textvariable = CStr(txtArray.Text)
47
48     myarray = textvariable.Split(",")
49     LblResults.Text = ""
50
51     'using the index method to find the postion of the letters
52     m = myarray(0).IndexOf(" ")
53     n = Len(myarray(0))
54     x = m + 1
55     y = n - m - 1
56     firstname = myarray(0).Substring(0, m)
57     lastname = myarray(0).Substring(x, y)
58
59     'appending the first and last name and assign to the array
60     myarray(0) = lastname & " " & firstname
61
62     'displaying the results
63
64     For i As Integer = 0 To myarray.GetUpperBound(0)
65         LblResults.Text &= myarray(i) & ", "
66
67     Next
68 End Sub
69
70 Private Sub Button4_Click(sender As Object, e As EventArgs) Handles  Button4.Click
71     'declare array and variables
72
73     Dim myarray() As String
74     Dim textvariable As String
75     Dim num1, num2, sum1, sum2, TotalSum As Integer
76     Dim R1, R2 As Integer
77     textvariable = CStr(txtArray.Text)
78
79     myarray = textvariable.Split(",")
80     LblResults.Text = ""
81
82     'using the while loop and algorithm , to find sum of numbers
83     num1 = myarray(1)
84
85     Do While (num1 > 0)
86         R1 = num1 Mod 10
87         sum1 = sum1 + R1
88         num1 = num1 \ 10
89     Loop
90
91     num2 = myarray(4)
92
93     Do While (num2 > 0)
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94         R2 = num2 Mod 10
95         sum2 = sum2 + R2
96         num2 = num2 \ 10
97     Loop
98
99     TotalSum = sum1 + sum2
100
101     'display the results in label box
102     LblResults.Text = TotalSum
103 End Sub
104
105 Private Sub Button5_Click(sender As Object, e As EventArgs) Handles Button5.Click
106     'declare array and variables
107     Dim montharr() As String = {"Jan", "Feb", "Mar", "Apr", "May", "Jun", "Jul", "Aug", "Sept", "Oct", "Nov", "Dec"}
108
109     LstResults1.Items.Clear()
110
111     'adding values to the list box using a for loop
112     LstResults1.Items.Add("Months " & vbTab & "Parts ")
113     LstResults1.Items.Add(" " & vbTab & " ")
114     LstResults1.Items.Add("----- ")
115
116     For i As Integer = 0 To arparts.GetUpperBound(0)
117         LstResults1.Items.Add(montharr(i) & vbTab & arparts(i))
118
119     Next
120
121
122 End Sub
123
124 Private Sub Button7_Click(sender As Object, e As EventArgs) Handles Button7.Click
125     'declare array and variables
126
127     Dim average As Double
128     Dim totparts As Integer
129
130     'calculating the total no of parts
131
132     For i As Integer = 0 To 5
133         totparts = arparts(i) + totparts
134     Next
135     ' calculating the average no of parts
136     average = totparts / 6
137
138     LblAvgresults.Text = average.ToString("N2")
139     LblTotResults.Text = totparts
```

```
140     End Sub
141
142     Private Sub Button6_Click(sender As Object, e As EventArgs) Handles Button6.Click
143         Dim arrsort(11) As Integer
144         Dim MonthPositon As Integer
145         Dim montharr() As String = {"Jan", "Feb", "Mar", "Apr", "May", "Jun",
146             "Jul", "Aug", "Sept", " Oct", "Nov", "Dec"}
147         Array.Copy(arparts, arrsort, arrsort.Length)
148         Array.Sort(arrsort)
149
150
151         LstResults2.Items.Clear()
152         LstResults2.Items.Add("Months " & vbTab & "Parts ")
153         LstResults2.Items.Add(" " & vbTab & " ")
154         LstResults2.Items.Add("----- ")
155
156
157         For i As Integer = 0 To arrsort.GetUpperBound(0)
158
159             'using the index of method finding out the month index for
160             'corresponding sorted array
161             MonthPositon = Array.IndexOf(arparts, arrsort(i))
162             LstResults2.Items.Add(montharr(MonthPositon) & vbTab & arrsort(i))
163
164         Next
165
166     End Sub
167
168 End Class
169
```