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1 'Tyler Hattan
2 'Project: Update 7-2 to 8-1
3 '9/8/2020
4 'Calculates Invoice Total
5
6 'Using Select Case seems to be easier to read since it breaks it into sections.
7   The switch statement in Java and C# does not use "End Select"
8
9 Public Class frmInvoiceTotal
10
11     Dim invoiceArray(4) As Decimal
12     Dim index As Integer = 0
13     Dim invoiceList As New List(Of Decimal)
14
15     Private Sub btnCalculate_Click(sender As Object,
16                                     e As EventArgs) Handles btnCalculate.Click
17
18         Dim subtotal As Decimal = CDec(txtSubtotal.Text)
19         Dim discountPercent As Decimal
20         Dim customerType As String = txtCustomerType.Text.ToUpper()
21         Dim validCustomerType As Boolean
22         Dim validSubtotal As Boolean
23
24         validCustomerType = IsValidCustomerType(customerType)
25         validSubtotal = IsValidSubtotal(subtotal)
26
27         If validCustomerType = True AndAlso validSubtotal = True Then
28             discountPercent = DiscountPct(subtotal, discountPercent,
29                                           customerType)
30
31             Dim discountAmount As Decimal = subtotal * discountPercent
32             Dim invoiceTotal As Decimal = subtotal - discountAmount
33
34             txtDiscountPercent.Text = FormatPercent(discountPercent, 1)
35             txtDiscountAmount.Text = FormatCurrency(discountAmount)
36             txtTotal.Text = FormatCurrency(invoiceTotal)
37
38             invoiceArray(index) = invoiceTotal
39             invoiceList.Add(invoiceTotal)
40             index += 1
41         End If
42
43         txtCustomerType.Select()
44     End Sub
45
46     Private Shared Function DiscountPct(subtotal As Decimal, discountPercent As
47                                         Decimal, customerType As String) As Decimal
48         Select Case customerType
49             Case "R"
50                 If subtotal < 100 Then
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50         discountPercent = 0
51         ElseIf subtotal >= 100 AndAlso subtotal < 250 Then
52             discountPercent = 0.1D
53         ElseIf subtotal >= 250 AndAlso subtotal < 500 Then
54             discountPercent = 0.25D
55         ElseIf subtotal >= 500 Then
56             discountPercent = 0.3D
57         End If
58
59         Case "C"
60             discountPercent = 0.2D
61
62         Case "T"
63             discountPercent = 0.4D
64
65         '
66         '           Case Else
67         '               discountPercent = 0.1D
68
69     End Select
70     Return discountPercent
71 End Function
72
73 Private Function IsValidCustomerType(customerType As String) As Boolean
74     customerType.ToUpper()
75     If customerType = "R" Or customerType = "C" Or customerType = "T" Then
76         Return True
77     Else
78         MessageBox.Show("Customer Type must be either R, C or T")
79         Return False
80     End If
81
82 End Function
83
84 Private Function IsValidSubtotal(subtotal As Decimal) As Boolean
85     If subtotal < 0 OrElse subtotal > 1000 Then
86         MessageBox.Show("Subtotal must be between 0 and 1000")
87         Return False
88     Else
89         Return True
90     End If
91 End Function
92
93 Private Sub ClearAllBoxes(sender As Object, e As EventArgs) Handles 
94     txtCustomerType.TextChanged, txtSubtotal.TextChanged
95     txtDiscountAmount.Text = ""
96     txtDiscountPercent.Text = ""
97     txtTotal.Text = ""
98 End Sub
99
100 Private Sub btnExit_Click(sender As Object,
    e As EventArgs) Handles btnExit.Click
```

```
101     Dim numberString As String = ""
102     Array.Sort(invoiceArray)
103     For Each i As Decimal In invoiceArray
104         If i > 0 Then
105             numberString &= "$" & i.ToString & vbCrLf
106         End If
107     Next
108     MessageBox.Show("The totals are: " & vbCrLf & numberString, "Invoice      ↗
109         Totals")
110
111     numberString = ""
112     invoiceList.Sort()
113     For Each i As Decimal In invoiceList
114         If i > 0 Then
115             numberString &= "$" & i.ToString & vbCrLf
116         End If
117     Next
118     MessageBox.Show("The totals are: " & vbCrLf & numberString, "Invoice      ↗
119         Totals")
120
121     Me.Close()
122 End Sub
End Class
```