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1  ' Lab #5, Chapter 4, Building Plans Conversion
2  ' Juan Carlos Flores Palacios, 900329145
3  ' CS 111, Sec. E01A LAB
4  ' Jan 18, 2023
5  ' Purpose: This program converts from meters to inches or from inches to meters
6  ' one inch is equivalent to 0.0254 meters and one meter is equivalent to 39.37008 inches
7
8
9  Public Class frmBuildingPC
10     'Const declaration
11
12     Const oneInchInMeters As Decimal = 0.0254D
13     Const oneMeterInInches As Decimal = 39.37008D
14
15
16     Private Sub btnConvert_Click(sender As Object, e As EventArgs) Handles btnConvert.Click
17         'This event handler is executed when user clicks the Convert button
18         'It calculates the conversion from meters to inches and from inches to meters
19         'If the user's entry is blank or nonnumeric the user is advised and asked
20         'for a valid entry
21
22         'Declaration section
23         Dim userEntry As Decimal
24         Dim decMeters As Decimal
25
26
27         'Did the user enter a numeric value?
28         If IsNumeric(txtDimention.Text) Then
29             userEntry = Convert.ToDecimal(txtDimention.Text)
30             'Is square footage greater than zero
31             If userEntry > 0 Then
32                 'Determine cost
33                 If rdbInchesToMeter.Checked Then
34                     decMeters = userEntry * oneInchInMeters
35                     'Display the conversion
36                     lblResult.Text = decMeters.ToString("F3") & " Meters"
37                 ElseIf rdbMeterToInches.Checked Then
38                     decMeters = userEntry * oneMeterInInches
39                     'Display the conversion
40                     lblResult.Text = decMeters.ToString("F3") & " Inches"
41                 ElseIf rdbInchesToMeter.Checked = False Or rdbMeterToInches.Checked = False Then
42                     'Display error message if user a choice is not selected
43                     MsgBox("Must make a selection, try again",, "Input Error")
44                     lblResult.Text = ""
45                     txtDimention.Focus()
46
47             End If
48         Else

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49         'Display error message if user entered a negative value
50         MsgBox("Must enter a number grater than zero",, "Imput Error")
51         lblResult.Text = ""
52         txtDimention.Text = ""
53         rdbMeterToInches.Checked = False
54         rdbInchesToMeter.Checked = False
55         txtDimention.Focus()
56     End If
57
58     Else
59         'Display error message if user entered an string or blank
60         MsgBox("Strings or blank not allowed, try again",, "Imput Error")
61         lblResult.Text = ""
62         txtDimention.Text = ""
63         rdbMeterToInches.Checked = False
64         rdbInchesToMeter.Checked = False
65         txtDimention.Focus()
66     End If
67
68 End Sub
69
70 Private Sub btnClear_Click(sender As Object, e As EventArgs) Handles  btnClear.Click
71     'This event handler is excuted when user clicks the Clear Button.
72     'It clears the lblResult label and the the txtDimention text box
73     'Also it clears the selection section
74
75     lblResult.Text = ""
76     txtDimention.Text = ""
77     rdbInchesToMeter.Checked = False
78     rdbMeterToInches.Checked = False
79
80 End Sub
81
82 Private Sub frmBuildingPC_Load(sender As Object, e As EventArgs) Handles  MyBase.Load
83     'This event handler is executed when the form is loaded at the start of
84     'the program. It sets the focus to thetxtDimention text box and clears
85     'The result text box
86
87     txtDimention.Focus()
88     lblResult.Text = ""
89 End Sub
90 End Class
91
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