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1 'Doug Cluff
2 'RCET0265
3 'Asg4-1
4 'Math Contest Form
5 'https://github.com/clufdoug/DACVSF19/tree/master/Assignments/Asg4-1
6
7 Option Explicit On
8 Option Strict On
9 Public Class ContestForm
10     Dim studentName As String
11     Dim studentAge As Integer
12     Dim studentGrade As Integer
13     Dim randomNumber As Random = New Random(DateTime.Now.Millisecond)
14     Dim firstNumber As Integer
15     Dim secondNumber As Integer
16     Dim errorReply As String = ""
17     Dim validBoolean As Boolean = True
18     Dim compresult As Double
19
20     Private Sub ContestForm_Load(sender As Object, e As EventArgs) Handles MyBase.Load
21         SubmitButton.Enabled = False
22     End Sub
23
24     Private Sub ContestForm_Validate()
25
26         Try
27             If Integer.Parse(AgeTextBox.Text) > 7 Or Integer.Parse
28                 (AgeTextBox.Text) < 11 Then ContestForm_Validate_Enable()
29         Catch ex As exception
30             MessageBox.Show("Age must be between 7 and 11")
31             AgeTextBox.Focus()
32         End Try
33
34         Try
35             If Integer.Parse(GradeTextBox.Text) > 1 Or Integer.Parse
36                 (GradeTextBox.Text) < 4 Then ContestForm_Validate_Enable()
37         Catch ex As Exception
38             MessageBox.Show("Grade must be between 1 and 4")
39             GradeTextBox.Focus()
40         End Try
41
42
43     End Sub
44
45     Private Sub ContestForm_Validate_Enable()
46
47
48
49     If AgeTextBox.TextLength = 0 Or GradeTextBox.TextLength = 0 Or
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        NameTextBox.TextLength = 0 Then
50         SubmitButton.Enabled = False
51         Integer.Parse(AgeTextBox.Text)
52
53     Else
54         Setnumbers()
55         SubmitButton.Enabled = True
56         studentName = NameTextBox.Text
57         studentAge = Integer.Parse(AgeTextBox.Text)
58         studentGrade = Integer.Parse(GradeTextBox.Text)
59
60         ValidateTextBox.Text = "Hello " & studentName & " Age " & studentAge &
        & " Grade " & studentGrade
61     End If
62
63 End Sub
64
65
66
67 Private Sub Setnumbers() 'Resets and displays the random number for
    calculations
68     firstNumber = randomNumber.Next(1, 10)
69     secondNumber = randomNumber.Next(1, 10)
70     FirstNumberTextBox.Text = CStr(firstNumber)
71     SecondNumberTextBox.Text = CStr(secondNumber)
72
73 End Sub
74 Private Sub MathType() 'Determines the type of math being used for the
    calculations
75     If AddButton.Checked = True Then
76         compresult = firstNumber + secondNumber
77         AnswerTextBox.Focus()
78     ElseIf SubtractButton.Checked = True Then
79         compresult = firstNumber - secondNumber
80         AnswerTextBox.Focus()
81     ElseIf MultiplyButton.Checked = True Then
82         compresult = firstNumber * secondNumber
83         AnswerTextBox.Focus()
84     ElseIf DivideButton.Checked = True Then
85         compresult = firstNumber / secondNumber
86         AnswerTextBox.Focus()
87     End If
88 End Sub
89
90 Private Sub ExitButton_Click(sender As Object, e As EventArgs) Handles
    ExitButton.Click 'Used to exit the program
91     Me.Close()
92 End Sub
93
94 Private Sub ClearButton_Click(sender As Object, e As EventArgs) Handles
    ClearButton.Click
95
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96     End Sub
97
98     Private Sub SummaryButton_Click(sender As Object, e As EventArgs) Handles SummaryButton.Click
99         MessageBox.Show(ValidateTextBox.Text, "Your Results")
100     End Sub
101
102     Private Sub SubmitButton_Click(sender As Object, e As EventArgs) Handles SubmitButton.Click
103         Try
104             Decimal.Parse(AnswerTextBox.Text)
105
106         Catch ex As Exception
107             errorReply = "Answer provided must be a number"
108             MessageBox.Show(errorReply)
109             AnswerTextBox.Text = ""
110             AnswerTextBox.Focus()
111         End Try
112
113
114         MathType()
115         If Decimal.Parse(AnswerTextBox.Text) = compresult Then
116
117             ValidateTextBox.Text = ValidateTextBox.Text & vbCrLf &
118                 AnswerTextBox.Text & " is correct"
119
120         Else
121             ValidateTextBox.Text = ValidateTextBox.Text & vbCrLf &
122                 AnswerTextBox.Text & " is not correct." _
123                 & vbCrLf & " The correct answer is " & compresult
124         End If
125         AnswerTextBox.Text = ""
126         AnswerTextBox.Focus()
127         Setnumbers()
128     End Sub
129
130     Private Sub AgeTextBox_TextChanged(sender As Object, e As EventArgs) Handles AgeTextBox.TextChanged, NameTextBox.TextChanged, GradeTextBox.TextChanged
131         ContestForm_Validate()
132     End Sub
133 End Class
134
```