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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
25
26     Private Sub ContestForm_Validate()
27
28
29
30
31     If AgeTextBox.TextLength = 0 Or GradeTextBox.TextLength = 0 Or NameTextBox.TextLength = 0 Then
32         SubmitButton.Enabled = False
33         'Integer.Parse(AgeTextBox.Text)
34     Else
35         Setnumbers()
36         SubmitButton.Enabled = True
37         studentName = NameTextBox.Text
38
39         Try
40             studentAge = Integer.Parse(AgeTextBox.Text)
41         Catch ex As Exception
42             MessageBox.Show("Please number as for Student Age")
43             AgeTextBox.Text = ""
44             AgeTextBox.Focus()
45         End Try
46
47         Try
48             studentGrade = Integer.Parse(GradeTextBox.Text)
49         Catch ex As Exception
50             MessageBox.Show("Please number as for Student Grade")
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51         GradeTextBox.Text = ""
52         GradeTextBox.Focus()
53     End Try
54
55     ValidateTextBox.Text = "Hello " & studentName & " Age " & studentAge &
56         & " Grade " & studentGrade
57 End If
58 End Sub
59
60
61
62 Private Sub Setnumbers() 'Resets and displays the random number for
63     calculations
64     firstNumber = randomNumber.Next(1, 10)
65     secondNumber = randomNumber.Next(1, 10)
66     FirstNumberTextBox.Text = CStr(firstNumber)
67     SecondNumberTextBox.Text = CStr(secondNumber)
68 End Sub
69 Private Sub MathType() 'Determines the type of math being used for the
70     calculations
71     If AddButton.Checked = True Then
72         compresult = firstNumber + secondNumber
73         AnswerTextBox.Focus()
74     ElseIf SubtractButton.Checked = True Then
75         compresult = firstNumber - secondNumber
76         AnswerTextBox.Focus()
77     ElseIf MultiplyButton.Checked = True Then
78         compresult = firstNumber * secondNumber
79         AnswerTextBox.Focus()
80     ElseIf DivideButton.Checked = True Then
81         compresult = firstNumber / secondNumber
82         AnswerTextBox.Focus()
83     End If
84 End Sub
85 Private Sub ExitButton_Click(sender As Object, e As EventArgs) Handles
86     ExitButton.Click 'Used to exit the program
87     Me.Close()
88 End Sub
89 Private Sub ClearButton_Click(sender As Object, e As EventArgs) Handles
90     ClearButton.Click
91     AgeTextBox.Clear()
92     ValidateTextBox.Clear()
93     NameTextBox.Clear()
94     GradeTextBox.Clear()
95     AnswerTextBox.Clear()
96     FirstNumberTextBox.Clear()
97     SecondNumberTextBox.Clear()
98     AddButton.Checked = False
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108 SubtractButton.Checked = False
109 MultiplyButton.Checked = False
110 DivideButton.Checked = False
111
112 End Sub
113
114 Private Sub SummaryButton_Click(sender As Object, e As EventArgs) Handles
115     SummaryButton.Click
116     MessageBox.Show(ValidateTextBox.Text, "Your Results")
117 End Sub
118
119 Private Sub SubmitButton_Click(sender As Object, e As EventArgs) Handles
120     SubmitButton.Click
121
122     Try
123         Decimal.Parse(AnswerTextBox.Text)
124
125         MathType()
126
127         If Decimal.Parse(AnswerTextBox.Text) = compresult Then
128             ValidateTextBox.Text = ValidateTextBox.Text & vbNewLine &
129                 AnswerTextBox.Text & " is correct"
130         Else
131             ValidateTextBox.Text = ValidateTextBox.Text & vbNewLine &
132                 AnswerTextBox.Text & " is not correct." _
133                 & vbNewLine & " The correct answer is " & compresult
134         End If
135         AnswerTextBox.Text = ""
136         AnswerTextBox.Focus()
137         Setnumbers()
138
139     Catch ex As Exception
140         errorReply = "Answer provided must be a number"
141         MessageBox.Show(errorReply)
142         AnswerTextBox.Text = ""
143         AnswerTextBox.Focus()
144     End Try
145
146 End Sub
147
148 Private Sub AgeTextBox_Leave(sender As Object, e As EventArgs) Handles
149     AgeTextBox.Leave
150
151     If Integer.Parse(AgeTextBox.Text) >= 7 And Integer.Parse(AgeTextBox.Text)
152         <= 11 Then
153         ContestForm_Validate()
154     Else
```

```
144         MessageBox.Show("Age must be between 7 and 11")
145         AgeTextBox.Focus()
146         AgeTextBox.Text = ""
147     End If
148 End Sub
149
150
151 Private Sub NameTextBox_TextChanged(sender As Object, e As EventArgs) Handles NameTextBox.TextChanged
152
153 End Sub
154
155 Private Sub GradeTextBox_leave(sender As Object, e As EventArgs) Handles GradeTextBox.Leave
156
157     If Integer.Parse(GradeTextBox.Text) >= 1 And Integer.Parse
158         (GradeTextBox.Text) <= 4 Then
159         ContestForm_Validate()
160     Else
161         MessageBox.Show("Grade must be between 1 and 4")
162         GradeTextBox.Focus()
163     End If
164 End Sub
165
166 End Class
167
```