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1 'Dane Davids
2 'RCET0265
3 'Math Contest
4 'Have a student answer math questions and display a summary
5
6 Option Explicit On
7 Option Strict On
8
9 Public Class MathContest
10     Dim math As Integer 'add = 1; subtract = 2; multiply = 3; divide = 4
11     Dim exitForm As Boolean
12     Dim firstNameTxtBoxChanged As Boolean
13     Dim lastNameTxtBoxChanged As Boolean
14     Dim gradeTxtBoxChanged As Boolean
15     Dim ageTxtBoxChanged As Boolean
16
17
18
19     Private Sub SubmitBtn_Click(sender As Object, e As EventArgs) Handles _
20         SubmitBtn.Click
21         Dim firstName As String
22         Dim lastName As String
23         Dim grade As Integer
24         Dim age As Integer
25         Dim errorMessage As String = ""
26
27
28
29         Try
30             age = CInt(AgeTxtBox.Text)
31         Catch ex As InvalidCastException
32             errorMessage = errorMessage & "Please enter an age between 7 and" _
33                 & " 11" & vbNewLine
34         End Try
35         Try
36             grade = CInt(GradeTxtBox.Text)
37         Catch ex As InvalidCastException
38             errorMessage = errorMessage & "Please enter a grade between 1st and" _
39                 & " 4th" & vbNewLine
40             GradeTxtBox.Select()
41             GradeTxtBox.Clear()
42         End Try
43
44         Try
45             lastName = LastNameTxtBox.Text
46         Catch ex As Exception
47             errorMessage = errorMessage & "Please enter the last name for " _
48                 & "student" & vbNewLine
49             LastNameTxtBox.Select()
50             LastNameTxtBox.Clear()
51         End Try
```

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52     Try
53         firstName = FirstNameTextBox.Text
54     Catch ex As Exception
55         errorMessage = errorMessage & "Please enter a name for the " &
56             "student" & vbNewLine
57         FirstNameTextBox.Select()
58         FirstNameTextBox.Clear()
59     End Try
60     If errorMessage <> "" Then
61         MessageBox.Show(errorMessage, "Something went wrong...")
62     End If
63 End Sub
64
65 Private Sub AgeTextBox_TextChanged(sender As Object, e As EventArgs) _
66     Handles AgeTextBox.TextChanged
67     ageTextBoxChanged = True
68 End Sub
69
70 Private Sub GradeTextBox_TextChanged(sender As Object, e As EventArgs) _
71     Handles GradeTextBox.TextChanged
72     gradeTextBoxChanged = True
73 End Sub
74
75 Private Sub LastNameTextBox_TextChanged(sender As Object, e As EventArgs) _
76     Handles LastNameTextBox.TextChanged
77     lastNameTextBoxChanged = True
78 End Sub
79
80 Private Sub FirstNameTextBox_TextChanged(sender As Object, e As EventArgs) _
81     Handles FirstNameTextBox.TextChanged
82     firstNameTextBoxChanged = True
83 End Sub
84
85 Private Sub ClearBtn_Click(sender As Object, e As EventArgs) Handles _
86     ClearBtn.Click
87     ClearAllFields()
88 End Sub
89
90 Sub ClearAllFields()
91     FirstNameTextBox.Text = ""
92     LastNameTextBox.Text = ""
93     GradeTextBox.Text = ""
94     AgeTextBox.Text = ""
95     FirstNumberTextBox.Text = ""
96     SecondNumberTextBox.Text = ""
97     StudentAnswerTextBox.Text = ""
98 End Sub
99
100
101 Sub DisplaySummary()
102
103 End Sub
```

```
104 Private Sub SummaryBtn_Click(sender As Object, e As EventArgs) Handles _
105     SummaryBtn.Click
106     DisplaySummary()
107     MathContestLoadAndRestart()
108 End Sub
109
110 Private Sub ExitBtn_Click(sender As Object, e As EventArgs) Handles _
111     ExitBtn.Click
112     exitForm = True
113     ExitSub()
114 End Sub
115
116 Sub ExitSub()
117     Me.Close()
118 End Sub
119
120 Private Sub MathContest_Load(sender As Object, e As EventArgs) Handles _
121     Me.Load
122     MathContestLoadAndRestart()
123 End Sub
124
125 Sub MathContestLoadAndRestart() 'restart is referring to when the summary _
126     'Button Is pressed, will reset code as if the program relaoded.
127     SubmitBtnDisabled()
128     SummaryBtnDisabled()
129     AddRBtn.Select()
130     exitForm = False
131     FirstNameTxtBox.Select()
132     lastNameTxtBoxChanged = False
133     firstNameTxtBoxChanged = False
134     ageTxtBoxChanged = False
135     gradeTxtBoxChanged = False
136 End Sub
137
138 Private Sub StudentInfoGroupBox_Leave(sender As Object, e As EventArgs) _
139     Handles StudentInfoGroupBox.Leave
140     If firstNameTxtBoxChanged = True AndAlso lastNameTxtBoxChanged = True _
141         AndAlso ageTxtBoxChanged = True AndAlso gradeTxtBoxChanged =
142         True Then
143         SubmitBtnEnabled()
144         SummaryBtnEnabled()
145     End If
146 End Sub
147
148 Sub SubmitBtnEnabled()
149     SubmitBtn.Enabled = True
150 End Sub
151
152 Private Sub AddRBtn_MouseClick(sender As Object, e As MouseEventArgs) _
153     Handles AddRBtn.MouseClick
154     math = 1
155 End Sub
```

```
156
157     Sub SummaryBtnEnabled()
158         SummaryBtn.Enabled = True
159     End Sub
160
161     Sub SummaryBtnDisabled()
162         SummaryBtn.Enabled = False
163     End Sub
164
165     Sub SubmitBtnDisabled()
166         SubmitBtn.Enabled = False
167     End Sub
168
169     Private Sub SubtractRBtn_MouseClick(sender As Object, e As MouseEventArgs) _
170         Handles SubtractRBtn.MouseClick
171         math = 2
172     End Sub
173
174     Private Sub MultiplyRBtn_MouseClick(sender As Object, e As MouseEventArgs) _
175         Handles MultiplyRBtn.MouseClick
176         math = 3
177     End Sub
178
179     Private Sub DivideRBtn_MouseClick(sender As Object, e As MouseEventArgs) _
180         Handles DivideRBtn.MouseClick
181         math = 4
182     End Sub
183 End Class
184
```