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1  'Nathan Comstock
2  'RCET0265
3  'Spring 2020
4  'CarRental
5  'https://github.com/comsnath/NC-VS-S20
6
7
8  Public Class CarRental
9
10     'Class Variables, storing summary information
11     Dim customerNum As Integer
12     Dim finalDistance As Double
13     Dim sumCost As Double
14
15     Private Sub Form1_Load(sender As Object, e As EventArgs) Handles Me.Load
16         'Disable textboxes and default Miles Radio Button
17         DistanceTextBox.Enabled = False
18         MileageChargeTextBox.Enabled = False
19         DayChargeTextBox.Enabled = False
20         MinusDiscountTextBox.Enabled = False
21         TotalTextBox.Enabled = False
22         MilesRadioButton.Checked = True
23
24         BeginningOdometerReadingTextBox.Text = "0"
25         BeginningOdometerReadingTextBox.Enabled = False
26         SummaryButton.Enabled = False
27         ClearButton.Enabled = True
28     End Sub
29
30     Private Sub CalculateButton_Click(sender As Object, e As EventArgs) Handles  CalculateButton.Click
31         'Validate All Data
32         Dim errorLog As String
33
34         If CustomerNameTextBox.Text = "" Then
35             errorLog &= "Please enter a valid Name." & vbNewLine
36             CustomerNameTextBox.Text = ""
37             CustomerNameTextBox.Focus()
38         End If
39
40         If AddressTextBox.Text = "" Then
41             errorLog &= "Please enter a valid Address." & vbNewLine
42             AddressTextBox.Text = ""
43             AddressTextBox.Focus()
44         End If
45
46         If CityTextBox.Text = "" Then
47             errorLog &= "Please enter a valid City." & vbNewLine
48             CityTextBox.Text = ""
49             CityTextBox.Focus()
50         End If
51
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52     If StateTextBox.Text = "" Then
53         errorLog &= "Please enter a valid State." & vbNewLine
54         StateTextBox.Text = ""
55         StateTextBox.Focus()
56     End If
57
58     If ZipCodeTextBox.Text = "" Then
59         errorLog &= "Please enter a valid Zip Code." & vbNewLine
60         ZipCodeTextBox.Text = ""
61         ZipCodeTextBox.Focus()
62     End If
63
64     Try
65         If EndingOdometerReadingTextBox.Text = "" Then
66             errorLog &= "Please enter a valid Ending Number." & vbNewLine
67             EndingOdometerReadingTextBox.Text = ""
68             EndingOdometerReadingTextBox.Focus()
69         ElseIf CInt(EndingOdometerReadingTextBox.Text) <= 0 Then
70             errorLog &= "Please enter a valid Ending Number." & vbNewLine
71             EndingOdometerReadingTextBox.Text = ""
72             EndingOdometerReadingTextBox.Focus()
73         End If
74     Catch ex As Exception
75         errorLog &= "Please enter a valid Ending Number." & vbNewLine
76         EndingOdometerReadingTextBox.Text = ""
77         EndingOdometerReadingTextBox.Focus()
78     End Try
79
80     Try
81         If CInt(NumberOfDaysTextBox.Text) <= 0 Then
82             errorLog &= "Please enter a valid Days Number." & vbNewLine
83             NumberOfDaysTextBox.Text = ""
84             NumberOfDaysTextBox.Focus()
85         ElseIf CInt(NumberOfDaysTextBox.Text) >= 45 Then
86             errorLog &= "Please enter a valid Days Number." & vbNewLine
87             NumberOfDaysTextBox.Text = ""
88             NumberOfDaysTextBox.Focus()
89         End If
90     Catch ex As Exception
91         errorLog &= "Please enter a valid Days Number." & vbNewLine
92         NumberOfDaysTextBox.Text = ""
93         NumberOfDaysTextBox.Focus()
94     End Try
95
96     'Display Errors or Proceed
97     If errorLog <> "" Then
98         MsgBox(errorLog)
99     Else
100         Calculation()
101     End If
102
103 End Sub
```

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104
105     Sub Calculation()
106         Dim distanceSum As Double
107         Dim mileageCost As Double
108         Dim dayCost As Integer
109         Dim aaaDiscount As Double
110         Dim seniorDiscount As Double
111         Dim totalCost As Double
112         Dim finalCost As Double
113
114         'Show Distance
115         If MilesRadioButton.Checked = True Then
116             DistanceLabel.Text = "Distance (mi)"
117             DistanceTextBox.Text = EndingOdometerReadingTextBox.Text
118         ElseIf KilometersRadioButton.Checked = True Then
119             '1 Mile is approximately equal to 1.61 Kilometer
120             DistanceLabel.Text = "Distance (km)"
121             DistanceTextBox.Text = (CDBl(EndingOdometerReadingTextBox.Text) * 1.61)
122         End If
123
124         'Save Distance Amount
125         distanceSum = CDBl(DistanceTextBox.Text)
126
127         'Calculate Mileage Charge
128         If CInt(EndingOdometerReadingTextBox.Text) < 200 Then
129             mileageCost = 0
130             MileageChargeTextBox.Text = FormatCurrency(0)
131         ElseIf CInt(EndingOdometerReadingTextBox.Text) < 500 Then
132             mileageCost = (CDBl(EndingOdometerReadingTextBox.Text) - 200) * 0.12
133             MileageChargeTextBox.Text = FormatCurrency(mileageCost)
134         ElseIf CInt(EndingOdometerReadingTextBox.Text) > 500 Then
135             mileageCost = ((CDBl(EndingOdometerReadingTextBox.Text) - 500) * 0.1) + 35.88
136             MileageChargeTextBox.Text = FormatCurrency(mileageCost)
137         End If
138
139         'Day Charge
140         dayCost = CInt(NumberOfDaysTextBox.Text) * 15
141         DayChargeTextBox.Text = FormatCurrency(dayCost)
142
143         'Create Total Variable
144         totalCost = mileageCost + dayCost
145
146         'Check for Discounts
147         If AAACheckBox.Checked Then
148             aaaDiscount = totalCost * 0.05
149         Else
150             aaaDiscount = 0
151         End If
152
153         If SeniorCheckBox.Checked Then
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154         seniorDiscount = totalCost * 0.03
155     Else
156         seniorDiscount = 0
157     End If
158
159     'Final Calculation and Display
160     finalCost = totalCost - (seniorDiscount + aaaDiscount)
161     MinusDiscountTextBox.Text = FormatCurrency(aaaDiscount + seniorDiscount)
162     TotalTextBox.Text = FormatCurrency(finalCost)
163
164     'Disable Calculate Button
165     CalculateButton.Enabled = False
166     ClearButton.Enabled = True
167
168     'Log to Summary
169     SummaryButton.Enabled = True
170     Summary(distanceSum, finalCost)
171 End Sub
172 Sub Summary(distanceSum As Double, finalCost As Double)
173     'Add one number to customer count.
174     customerNum = customerNum + 1
175
176     'Add distance to total.
177     finalDistance = finalDistance + distanceSum
178
179     'Add cost to total.
180     sumCost = sumCost + finalCost
181 End Sub
182
183 Private Sub ExitButton_Click(sender As Object, e As EventArgs) Handles 
184     ExitButton.Click
185     'Exit Message Prompt
186     Dim Msg, Style, Title, Response
187     Msg = "Are you sure you want to exit?" ' Define message.
188     Style = vbYesNo + vbDefaultButton2 ' Define buttons.
189     Title = "Exit Prompt" ' Define title.
190
191     Response = MsgBox(Msg, Style, Title)
192     If Response = vbYes Then ' User chose Yes.
193         Me.Close()
194     End If
195 End Sub
196 Private Sub ClearButton_Click(sender As Object, e As EventArgs) Handles 
197     ClearButton.Click
198     'Reset All
199     CustomerNameTextBox.Text = ""
200     AddressTextBox.Text = ""
201     CityTextBox.Text = ""
202     StateTextBox.Text = ""
203     ZipCodeTextBox.Text = ""
204     EndingOdometerReadingTextBox.Text = ""
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204     NumberOfDaysTextBox.Text = ""
205
206     DistanceTextBox.Text = ""
207     MileageChargeTextBox.Text = ""
208     DayChargeTextBox.Text = ""
209     MinusDiscountTextBox.Text = ""
210     TotalTextBox.Text = ""
211
212     AAACheckBox.Checked = False
213     SeniorCheckBox.Checked = False
214
215     MilesRadioButton.Checked = True
216     KilometersRadioButton.Checked = False
217
218     CalculateButton.Enabled = True
219     ClearButton.Enabled = False
220 End Sub
221
222 Private Sub SummaryButton_Click(sender As Object, e As EventArgs) Handles SummaryButton.Click
223     ClearButton.PerformClick()
224     MsgBox("Total Customers: " & customerNum & vbNewLine & "Total Distance: \(mi\) " & finalDistance & vbNewLine & "Total Cost: " & FormatCurrency \(sumCost\))
225 End Sub
226 End Class
227
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