

```
1 'Donark Patel
2 'CSC-208-58
3 'VB Lab 8
4 'Date: 4/4/2018
5 'This application determine the discounted price of an item.
6 Public Class Form1
7
8
9
10     Private Sub btnExit_Click(sender As Object, e As EventArgs) Handles ↗
11         btnExit.Click
12         Me.Close()
13     End Sub
14
15     Private Sub btnClear_Click(sender As Object, e As EventArgs) Handles ↗
16         btnClear.Click
17         txtItem.Text = String.Empty
18         txtQuantity.Text = String.Empty
19         lblDiscountedPrice.Text = String.Empty
20         lblPrice.Text = String.Empty
21         lblSavingAmount.Text = String.Empty
22         lblTotal.Text = String.Empty
23         lblDiscountCategory.Text = String.Empty
24         lblDiscountPercentage.Text = String.Empty
25
26     End Sub
27
28     Private Sub btnCalculate_Click(sender As Object, e As EventArgs) Handles ↗
29         btnCalculate.Click
30         Dim intItemNumber As Integer
31         Dim intQuantity As Integer
32         Dim decPrice As Decimal
33         Dim intCategory As Integer
34         Dim decDiscountPer As Integer
35         Dim decDiscountedPrice As Decimal
36         Dim decTotal As Decimal
37         Dim decSaving As Decimal
38
39         'Const intMax_ItemNumber As Integer = 9
40         'Const intMax_ListPrice As Integer = 9
41         Dim decListPriceArray(,) = {{1987, 0.55},
42                                     {3243, 25.0},
43                                     {3454, 429.0},
44                                     {4324, 32.0},
45                                     {4423, 750.0},
46                                     {5423, 75.0},
47                                     {6534, 2.25},
48                                     {7364, 125.0},
49                                     {7453, 37.5},
49                                     {8745, 1.25}}
50         Dim intCategoryCategory(,) = {{1987, 3},
```

```
50             {3243, 1},
51             {3454, 2},
52             {4324, 1},
53             {4423, 2},
54             {5423, 2},
55             {6534, 3},
56             {7364, 4},
57             {7453, 1},
58             {8745, 3}}
59     Dim decDiscountPercent(,) = {{1, 10},
60                                   {2, 7},
61                                   {3, 5}}
62     Try
63         If txtItem.Text = String.Empty Then
64             txtItem.Focus()
65             MessageBox.Show("Error: Item number is missing. Please enter the
66                               Item number", "Input Data Error", MessageBoxButtons.OKCancel,
67                               MessageBoxIcon.Stop)
68
69             Return
70         Else
71             intItemNumber = CInt(txtItem.Text)
72             decPrice = FindPrice(decListPriceArray, intItemNumber)
73             If decPrice = 0 Then
74                 txtItem.Focus()
75                 MessageBox.Show("Error: Invalid Item number. Please, enter
76                               valid item number. You have entered: " & intItemNumber,
77                               "Input Data Error", MessageBoxButtons.OKCancel,
78                               MessageBoxIcon.Stop)
79                 Return
80             End If
81
82             'If intItemNumber <= 999 Or intItemNumber >= 10000 Then
83             '    txtItem.Focus()
84             '    MessageBox.Show("Error: Invalid item number. Please enter a
85             '    4 digit non-zero item number. You have entered: " &
86             '    intItemNumber, "Input Data Error", MessageBoxButtons.OKCancel,
87             '    MessageBoxIcon.Stop)
88             '    Return
89             'End If
90         End If
91     Catch
92         txtItem.Focus()
93         MessageBox.Show("Error: Invalid item number. Please enter a 4 digit
94                           item number. You have entered: " & txtItem.Text, "Input Data
95                           Error", MessageBoxButtons.OKCancel, MessageBoxIcon.Stop)
96     End Try
97
98     Try
```

```
92         If txtQuantity.Text = String.Empty Then
93             txtQuantity.Focus()
94             MessageBox.Show("Error: Quantity number is missing. Please enter
the quantity number", "Input Data Error",
MessageBoxButtons.OKCancel, MessageBoxIcon.Stop)
95         Return
96     Else
97         intQuantity = CInt(txtQuantity.Text)
98         If intQuantity <= 0 Then
99             txtQuantity.Focus()
100             MessageBox.Show("Error: Invalid number for a quantity. Please
enter non-zero number. You have entered: " & intQuantity,
"Input Data Error", MessageBoxButtons.OKCancel,
MessageBoxIcon.Stop)
101         Return
102     End If
103 End If
104 Catch
105     txtQuantity.Focus()
106     MessageBox.Show("Error: Invalid number for quantity. Please enter
non-zero number. You have entered: " & txtQuantity.Text, "Input
Data Error", MessageBoxButtons.OKCancel, MessageBoxIcon.Stop)
107     Return
108 End Try
109
110
111 'decPrice = FindPrice(decListPriceArray, intItemNumber)
112 'If decPrice = 0 Then
113 '    MessageBox.Show("Error: Invalid Item number. Please, enter valid
item number. You have entered: " & intItemNumber, "Input Data Error",
MessageBoxButtons.OKCancel, MessageBoxIcon.Stop)
114 '    Return
115 'End If
116 'lblPrice.Text = FormatCurrency(decPrice)
117
118 lblPrice.Text = FormatCurrency(decPrice)
119
120 intCategory = FindDiscountCetegory(intCategoryCategory, intItemNumber)
121 lblDiscountCategory.Text = intCategory
122
123
124
125 decDiscountPer = FindDiscountPercentage(decDiscountPercent, intCategory)
126 If decDiscountPer = 0 Then
127     MessageBox.Show("This product does not receive discount. ", "Non-
discounted product", MessageBoxButtons.OKCancel,
MessageBoxIcon.Information)
128     Return
129 Else
130     lblDiscountPercentage.Text = FormatPercent(decDiscountPer / 100)
131 End If
132
```

```
133     decDiscountedPrice = decPrice - (decPrice * (decDiscountPer / 100))
134     lblDiscountedPrice.Text = FormatCurrency(decDiscountedPrice, 4)
135
136     decTotal = decDiscountedPrice * intQuantity
137     lblTotal.Text = FormatCurrency(decTotal)
138
139
140     decSaving = (decPrice * intQuantity) - (decDiscountedPrice * intQuantity)
141     lblSavingAmount.Text = FormatCurrency(decSaving)
142 End Sub
143
144
145
146 Function FindPrice(ByVal decListPriceArray(,) As Double, ByVal intItemNumber As Integer) As Decimal
147     Dim i As Integer
148     Dim decPrice As Decimal
149
150     For i = 0 To decListPriceArray.GetUpperBound(0)
151
152         If decListPriceArray(i, 0) = intItemNumber Then
153             decPrice = decListPriceArray(i, 1)
154         End If
155
156     Next
157
158     Return decPrice
159
160 End Function
161
162 Function FindDiscountCetegory(ByVal intCategoryCategory(,) As Integer, ByVal intItemNumber As Integer) As Decimal
163     Dim i As Integer
164     Dim intCategory As Integer
165
166     For i = 0 To intCategoryCategory.GetUpperBound(0)
167
168         If intCategoryCategory(i, 0) = intItemNumber Then
169             intCategory = intCategoryCategory(i, 1)
170         End If
171
172     Next
173
174     Return intCategory
175 End Function
176 Function FindDiscountPercentage(ByVal decDiscountPercent(,) As Integer, ByVal intCategory As Integer) As Decimal
177     Dim i As Integer
178     Dim decDiscountPer As Decimal
179
180     For i = 0 To decDiscountPercent.GetUpperBound(0)
181
```

```
182         If decDiscountPercent(i, 0) = intCategory Then
183             decDiscountPer = decDiscountPercent(i, 1)
184         End If
185
186     Next
187
188     Return decDiscountPer
189 End Function
190 End Class
191
```