

```
1  ''' <summary>
2  ''' This program will help the user convert student exam marks into grades.
3  ''' The user will be able to ...
4  '''
5  ''' Author:          Derek Peacock
6  ''' Course:         OCR IT Diploma
7  ''' Unit27:        Developing Program Solutions
8  ''' Assessment 2:   P2, P3, M2, D1
9  ''' Last Modified:  5th May 2018
10 ''' </summary>
11 Public Class StudentGradesForm
12
13     Dim name As String
14     Dim mark As Integer
15     Dim grade As String
16
17     Dim filename As String
18
19     Dim percentF As Integer
20     Dim percentP As Integer
21     Dim percentM As Integer
22     Dim percentD As Integer
23
24     ''' <summary>
25     ''' When the user clicks on the Load Names Button the user will be      ↗
26     ''' prompted
27     ''' to select a csv names file, and when they click ok button the file of
28     ''' names will be opened, read in and added to the names list box
29     ''' </summary>
30 Private Sub LoadStudentNames(sender As Object, e As EventArgs) Handles      ↗
31     OpenFileDialog1.Filter = "CSV Files|*.csv"
32     OpenFileDialog1.ShowDialog()
33
34     filename = OpenFileDialog1.FileName
35
36     FileOpen(1, filename, OpenMode.Input)
37
38     NamesListBox.Items.Clear()
39
40     Do While Not EOF(1)
41         name = LineInput(1)
42         NamesListBox.Items.Add(name)
43     Loop
44
45     FileClose(1)
46
47 End Sub
48
49     ''' <summary>
50     ''' Add use case desription here!
51     ''' </summary>
52 Private Sub LoadStudentMarks(sender As Object, e As EventArgs) Handles      ↗
53     NewToolStripMenuItem.Click
```

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54
55     FileClose(1)
56
57     CalculateGrades(sender, e)
58     CalculatePercentages(sender, e)
59
60 End Sub
61
62
63 ''' <summary>
64 ''' Add use case description here!
65 ''' </summary>
66 Private Sub CalculateGrades(sender As Object, e As EventArgs)
67
68     GradesListBox.Items.Clear()
69
70     For Each mark In MarksListBox.Items
71
72         If (mark < 40) Then
73             grade = "F"
74             percentF = percentF + 1
75         ElseIf (mark < 65) Then
76             grade = "P"
77             percentP = percentM + 1
78         ElseIf (mark <= 80) Then
79             grade = "M"
80             percentM = percentM + 1
81         ElseIf (mark < 100) Then
82             grade = "D"
83             percentD = percentP + 1
84         End If
85
86         GradesListBox.Items.Add(grade)
87
88     Next
89
90 End Sub
91
92
93 ''' <summary>
94 ''' Add use case description here!
95 ''' </summary>
96 Private Sub CalculatePercentages(sender As Object, e As EventArgs)
97
98     Dim totalGrades As Integer = percentF + percentP + percentM + percentD
99
100    percentF = percentF * 100 / totalGrades
101    percentP = percentM * 100 / totalGrades
102    percentM = percentM * 100 / totalGrades
103    percentD = percentP * 100 / totalGrades
104
105    PercentListBox.Items.Clear()
106
107    PercentListBox.Items.Add("Percent of F = " & percentF)
108    PercentListBox.Items.Add("Percent of P = " & percentP)
109    PercentListBox.Items.Add("Percent of M = " & percentM)
```

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110     PercentListBox.Items.Add("Percent of D = " & percentP)
111
112     End Sub
113
114
115     ''' <summary>
116     ''' Add use case description here!
117     ''' </summary>
118     Private Sub ExitApplication(sender As Object, e As EventArgs) Handles Button4.Click ↗
119         Close()
120     End Sub
121
122     ''' <summary>
123     ''' todo
124     ''' </summary>
125     Private Sub SaveGrades(sender As Object, e As EventArgs) Handles SaveToolStripMenuItem.Click ↗
126
127         SaveFileDialog1.Filter = "CSV Files|*.csv"
128         SaveFileDialog1.ShowDialog()
129
130         filename = SaveFileDialog1.FileName
131
132         FileOpen(1, filename, OpenMode.Output)
133
134         For Each grade In GradesListBox.Items
135             Print(1, grade, vbCrLf)
136         Next
137
138         FileClose(1)
139
140     End Sub
141
142 End Class
```