

# **Assignment #2 - Load Moment on a Beam**

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**COURSE NO: PROG8240**

**COURSE NAME: STRUCTURED PROGRAMMING**

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1 'AKSHAY PHILIP THOMAS,PROG8240,Structured Programming, STUDENT NO: 8795161
2 Public Class Form1
3     Private Sub btnCalculate_Click(sender As Object, e As EventArgs) Handles btnCalculate.Click
4         'declare the variables
5         Dim mass, lenght, angle, noofpos, moment, weight, anglechange As Double
6         Const pi As Double = 3.1415926
7         Const G As Double = 9.81
8
9         'Assiging the variables
10
11         mass = txtMass.Text
12         lenght = txtLength.Text
13         anglechange = txtAngleChange.Text
14         noofpos = xtNumOfPos.Text
15
16         weight = mass * G
17         angle = 0
18
19         'using for loop to calculate the moment in different angle position
20         For i As Integer = 1 To noofpos
21             moment = weight * lenght * Math.Cos(angle * (pi / 180))
22
23             LstAngles.Items.Add((Math.Round(angle, 2)))
24             LstMoments.Items.Add(moment.ToString("N2"))
25             angle = angle + anglechange 'increment angle with anglechange with every cycle in the for loop
26         Next
27
28
29
30     End Sub
31
32     Private Sub btnQuit_Click(sender As Object, e As EventArgs) Handles btnQuit.Click
33         'Close when quit button is pressed
34         Me.Close()
35
36     End Sub
37
38     Private Sub txtMass_TextChanged(sender As Object, e As EventArgs) Handles txtMass.TextChanged
39         'Clear the list box when mass is edited
40         LstAngles.Items.Clear()
41         LstMoments.Items.Clear()
42     End Sub
43
44     Private Sub txtLength_TextChanged(sender As Object, e As EventArgs) Handles txtLength.TextChanged
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45     'Clear the list box when lenght is edited
46     LstAngles.Items.Clear()
47     LstMoments.Items.Clear()
48 End Sub
49
50 Private Sub txtAngleChange_TextChanged(sender As Object, e As EventArgs) ↗
    Handles txtAngleChange.TextChanged
51     'Clear the list box when angle change is edited
52     LstAngles.Items.Clear()
53     LstMoments.Items.Clear()
54 End Sub
55
56 Private Sub xtNumOfPos_TextChanged(sender As Object, e As EventArgs) Handles ↗
    xtNumOfPos.TextChanged
57     'Clear the list box when no of positions is edited
58     LstAngles.Items.Clear()
59     LstMoments.Items.Clear()
60 End Sub
61 End Class
62
```