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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
5         'declare the variables
6
7         Dim cutspeed, dia, upperlimt, lowerlimt, maxspeed As Double
8         Dim rpm As Integer
9
10        'assigning the variables
11
12        lowerlimt = Val(cboMinStockSize.Text)
13        upperlimt = Val(cboMaxStockSize.Text)
14
15        maxspeed = Val(nudMaxAllowedSpeed.Value)
16        cutspeed = nudCuttingSpeed.Value
17        Const pi As Double = 3.1415926
18
19        ' checking if conditions for the 4 radio buttons
20
21        If (rad125.Checked = True) Then
22
23            LstResults.Items.Clear()
24            LstResults.Items.Add("Stock size " & vbTab & "RPM ")
25            LstResults.Items.Add(" " & vbTab & " ")
26
27            'using for loop find the the values of RPM using differnt increment
28
29            For dia = lowerlimt To upperlimt Step 0.125
30                rpm = (12 * cutspeed) / (pi * dia)
31
32                If (rpm < maxspeed) Then
33                    LstResults.Items.Add(dia.ToString("N3") & vbTab & vbTab & rpm)
34
35                Else
36                    LstResults.Items.Add(dia.ToString("N3") & vbTab & vbTab & "OVER MAX")
37                End If
38
39            Next
40
41            'using for loop find the the values of RPM using differnt increment
42        ElseIf (rad250.Checked = True) Then
43
44            LstResults.Items.Clear()
45            LstResults.Items.Add("Stock size " & vbTab & "RPM ")
46            LstResults.Items.Add(" " & vbTab & " ")
```

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47
48     For dia = lowerlimt To upperlimt Step 0.25
49         rpm = (12 * cutspeed) / (pi * dia)
50         If (rpm < maxspeed) Then
51             LstResults.Items.Add(dia.ToString("N3") & vbTab & vbTab & rpm)
52
53         Else
54             LstResults.Items.Add(dia.ToString("N3") & vbTab & vbTab & "OVER MAX")
55         End If
56     Next
57
58     'using for loop find the the values of RPM using differnt increment
59 ElseIf (rad375.Checked = True) Then
60     LstResults.Items.Clear()
61     LstResults.Items.Add("Stock size " & vbTab & "RPM ")
62     LstResults.Items.Add(" " & vbTab & " ")
63
64     For dia = lowerlimt To upperlimt Step 0.375
65         rpm = (12 * cutspeed) / (pi * dia)
66         If (rpm < maxspeed) Then
67             LstResults.Items.Add(dia.ToString("N3") & vbTab & vbTab & rpm)
68
69         Else
70             LstResults.Items.Add(dia.ToString("N3") & vbTab & vbTab & "OVER MAX")
71         End If
72     Next
73
74     'using for loop find the the values of RPM using differnt increment
75 ElseIf (rad500.Checked = True) Then
76     LstResults.Items.Clear()
77     LstResults.Items.Add("Stock size " & vbTab & "RPM ")
78     LstResults.Items.Add(" " & vbTab & " ")
79
80     For dia = lowerlimt To upperlimt Step 0.5
81         rpm = (12 * cutspeed) / (pi * dia)
82         If (rpm < maxspeed) Then
83             LstResults.Items.Add(dia.ToString("N3") & vbTab & vbTab & rpm)
84
85         Else
86             LstResults.Items.Add(dia.ToString("N3") & vbTab & vbTab & "OVER MAX")
87         End If
88     Next
89
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90         End If
91     End Sub
92
93     'when close button is pressed the program quits
94     Private Sub btnExit_Click(sender As Object, e As EventArgs) Handles  btnExit.Click
95         Me.Close()
96     End Sub
97
98
99 End Class
100
```