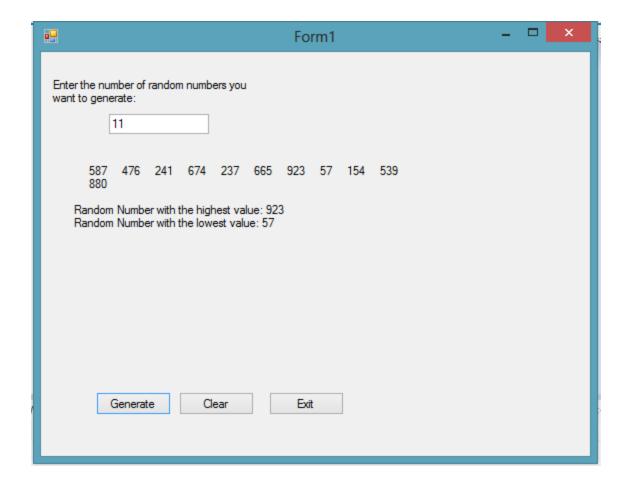
Question 1:

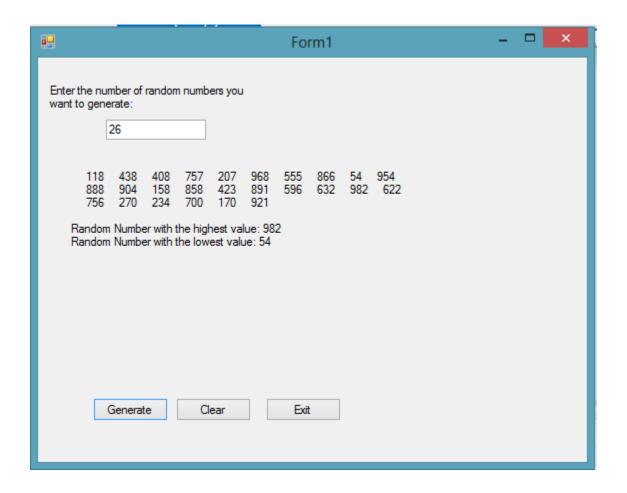
```
Public Class Form1 'Ilker Hadzhalaran
   Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
        lblDisplayArray.Text = String.Empty
        txtUserEntersNumberOfNumbers.Clear()
    End Sub
   Private Sub btnGenerate_Click(sender As Object, e As EventArgs) Handles
btnGenerate.Click
        Dim N As Integer
        Dim intArray() As Integer = {}
        Dim rand As New Random()
        Dim intRandomNumber As Integer
       Dim intMin, intMax As Integer
       N = CInt(txtUserEntersNumberOfNumbers.Text)
        If N > 0 Then
            ReDim intArray(N - 1)
            lblDisplayArray.Text = "Enter a number greater than 0."
            Exit Sub
        End If
       For intCounter As Integer = 0 To intArray.Length - 1 Step 1
            If intCounter Mod 10 = 0 And intCounter <> 0 Then
                lblDisplayArray.Text &= vbCr
            Fnd Tf
            intRandomNumber = rand.Next(1001) + 1
            intArray(intCounter) = intRandomNumber
            lblDisplayArray.Text &= Space(5) & intArray(intCounter).ToString()
       Next
       FindMinAndMax(intMin, intMax, N, intArray)
        lblDisplayArray.Text &= vbCr & vbCr & "Random Number with the highest value: " &
intMax
        lblDisplayArray.Text &= vbCr & "Random Number with the lowest value: " & intMin
    End Sub
   Private Sub FindMinAndMax(ByRef intMin As Integer, ByRef intMax As Integer, ByVal N
As Integer, ByVal ParamArray intArray() As Integer)
        intMin = intArray.Min
        intMax = intArray.Max
    End Sub
```

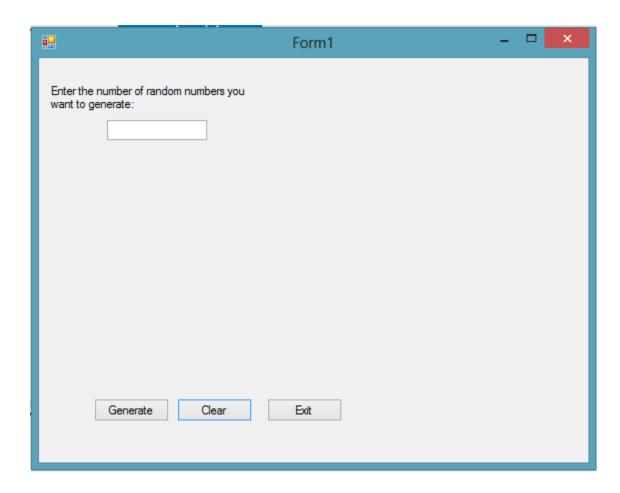
```
Private Sub btnClear_Click(sender As Object, e As EventArgs) Handles btnClear.Click
    lblDisplayArray.Text = String.Empty
    txtUserEntersNumberOfNumbers.Clear()

End Sub

Private Sub btnExit_Click(sender As Object, e As EventArgs) Handles btnExit.Click
    Me.Close()
End Sub
End Class
```







Question 2:

```
Public Class Form1 'Ilker Hadzhalaran
   Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
        lstMaterialsList.Items.Add("Aluminum")
        lstMaterialsList.Items.Add("Brass")
       lstMaterialsList.Items.Add("Copper")
        lstMaterialsList.Items.Add("Nylon")
        lstMaterialsList.Items.Add("Steel")
        lstMaterialsList.Items.Add("Teflon")
       txtInputA.Clear()
       txtInputDeltaL.Clear()
       txtInputLKnot.Clear()
        lblDisplayResults.Text = String.Empty
       lstMaterialsList.SelectedIndex = 0
    End Sub
   Private Sub btnCalculate Click(sender As Object, e As EventArgs) Handles
btnCalculate.Click
        Dim dblInputA, dblInputLKnot, dblInputDeltaL, dblForceMagnitude As Double
       Dim intIndexOfListBox As Integer
        Dim dblArrayYoungModulus() As Double = {6.9, 9.0, 11.0, 0.37, 21.0, 0.037}
       dblInputA = CDbl(txtInputA.Text)
        dblInputLKnot = CDbl(txtInputLKnot.Text)
        dblInputDeltaL = CDbl(txtInputDeltaL.Text)
       If dblInputA < 0.01 Or dblInputA > 0.2 Then
            MsgBox("0.01 <= A <= 0.2")
            Exit Sub
       Fnd Tf
       If dblInputLKnot < 10 Or dblInputLKnot > 20 Then
            MsgBox("10 <= L knot <= 20")
            Exit Sub
       End If
       If dblInputDeltaL <= 0 Or dblInputDeltaL > (1.5 * 10 ^ -3) Then
            MsgBox("0 < delta L <= 1.5 * 10^-3")
            Exit Sub
       End If
        Try
            intIndexOfListBox = lstMaterialsList.SelectedIndex
            dblForceMagnitude = (dblArrayYoungModulus(intIndexOfListBox) * 10 ^ 10) *
(dblInputDeltaL / dblInputLKnot) * dblInputA
            lblDisplayResults.Text = "Input Values: " & (dblInputA).ToString("e3") & "
m^2," & Space(5) & (dblInputLKnot).ToString("e3") & " m," & Space(5) &
```

```
(dblInputDeltaL).ToString("e3") & " m," & Space(5) & "Material: " &
lstMaterialsList.SelectedItem
            lblDisplayResults.Text &= vbCr & "Magnitude of Force: " &
(dblForceMagnitude).ToString("e3") & " N"
       Catch ex As Exception
           MessageBox.Show(ex.Message)
       End Try
   End Sub
   Private Sub btnClear Click(sender As Object, e As EventArgs) Handles btnClear.Click
       txtInputA.Clear()
       txtInputDeltaL.Clear()
       txtInputLKnot.Clear()
       lblDisplayResults.Text = String.Empty
       lstMaterialsList.SelectedIndex = 0
   End Sub
   Private Sub btnExit_Click(sender As Object, e As EventArgs) Handles btnExit.Click
    End Sub
End Class
```

