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Public Class Form1
    Inherits System.Windows.Forms.Form

    Windows Form Designer generated code

    Dim mintScores() As Integer = {5, 13, 29, 31, 44, 53, 66, 75, 87, 99}

    Private Sub btnFill_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
        Handles btnFill.Click
            Dim i As Integer = 0

            For i = 0 To mintScores.Length() - 1
                mintScores(i) = Math.Floor(Rnd() * 100) + 1
            Next

            System.Array.Sort(mintScores)

        End Sub

    Private Sub btnSearch_Click(ByVal sender As System.Object, ByVal e As System.
        EventArgs) Handles btnSearch.Click
            Dim intLow As Integer = 0
            Dim intHigh As Integer = mintScores.Length() - 1
            Dim intKey As Integer = Val(txtKey.Text)
            Dim intMid As Integer = intHigh / 2
            Dim blnFound As Boolean = False

            Do While (Not (blnFound) And intLow <= intHigh)

                If (mintScores(intMid) = intKey) Then
                    blnFound = True
                Else
                    If (mintScores(intMid) > intKey) Then
                        intHigh = intMid - 1
                    ElseIf (intKey > mintScores(intMid)) Then
                        intLow = intMid + 1
                    End If

                    intMid = Math.Round((intLow + intHigh) / 2)
                End If

            Loop

            If (blnFound = True) Then
                lblResult.Text = "Found in position " + intMid.ToString()
            Else
                lblResult.Text = "Not Found"
            End If

        End Sub

    Private Sub btnDisplay_Click(ByVal sender As System.Object, ByVal e As System.
        EventArgs) Handles btnDisplay.Click
            Dim strString As String = ""
            Dim i As Integer = 0

            For i = 0 To mintScores.Length() - 1
                strString = strString + " " + mintScores(i).ToString()
            Next

            lblDisplay.Text = strString

        End Sub
    End Class
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