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' Ch4Demo Array Sequential Search

Public Class Form1
    Inherits System.Windows.Forms.Form

    Windows Form Designer generated code

    Dim mintScores(5) As Integer ' or mintScores(5) As Integer = {1, 2, 3, 4, 5}
    Dim mintIndex As Integer = 0 ' keeps track of next available position in mintScores

    Private Sub btnAdd_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnAdd.Click
        mintScores(mintIndex) = Val(txtInput.Text)
        mintIndex += 1 ' incrementing so that the next number is stored in the next available position of mintScores
        txtInput.Clear()
        txtInput.Select() ' sets the focus back to the textbox
    End Sub

    Private Sub btnDisplay_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnDisplay.Click
        Dim J As Integer = 0 ' loop variable

        For J = 0 To mintIndex - 1 ' Why can't we use 5 as the upper bound for this For loop?
            lblDisplay.Text = lblDisplay.Text + mintScores(J).ToString + " " ' displaying the values in the array on
one line
        Next
    End Sub

    Private Sub btnFind_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles btnFind.Click
        Dim J As Integer = 0 ' loop variable
        Dim blnFound As Boolean = False ' flag variable to keep track of whether the key was found or not

        For J = 1 To mintIndex - 1

            If (mintScores(J) = Val(txtKey.Text)) Then
                MessageBox.Show("Found in position " + J.ToString())
                blnFound = True
            End If
        Next

        If (Not blnFound) Then
            MessageBox.Show("The key value was not found.")
        End If
    End Sub
End Class
```