**Structures, Fill, Shuffle, and Uniqueness**

Public Class Form1

Structure Stu

Dim Idnum As Long

Dim gl As Integer

Dim gpa As Single

End Structure

Dim arrstus(100) As Stu

Private Sub cmdFill\_Click(sender As Object, e As EventArgs) Handles cmdFill.Click

Dim i As Integer

Randomize()

For i = 1 To 100

With arrstus(i)

.Idnum = 100000 + i

.gl = Int(Rnd() \* 12) + 1

.gpa = (Int(Rnd() \* 400) + 1) / 100

ListBox1.Items.Add(Str(.Idnum) + "-" + Str(.gl) + " " + Str(.gpa))

End With

Next

End Sub

Private Sub cmdShuffle\_Click(sender As Object, e As EventArgs) Handles cmdShuffle.Click

Dim r As Integer, i As Integer

Dim temp As Stu

Randomize()

For i = 1 To 100

r = Int(Rnd() \* 100) + 1

temp = arrstus(r)

arrstus(r) = arrstus(i)

arrstus(i) = temp

Next

For i = 1 To 100

With arrstus(i)

ListBox3.Items.Add(Str(.Idnum) + "-" + Str(.gl) + " " + Str(.gpa))

End With

Next

End Sub

Private Sub cmdunique\_Click(sender As Object, e As EventArgs) Handles cmdunique.Click

Dim s As Stu, arrstusbygl(100) As Stu

Dim flag As Integer, i As Integer, j As Integer, uc As Integer

uc = 1

arrstusbygl(uc) = arrstus(1)

For i = 2 To 100

flag = 0

s = arrstus(i)

For j = 1 To uc

If s.gl = arrstusbygl(j).gl Then

flag = 1

Exit For

End If

Next

If flag = 0 Then

uc = uc + 1

arrstusbygl(uc) = s

End If

Next

For i = 1 To uc

With arrstusbygl(i)

ListBox2.Items.Add(Str(.Idnum) + "-" + Str(.gl) + " " + Str(.gpa))

End With

Next

End Sub