

FALL 2007  
CS 113: Introduction to Computers  
*Assignment 12*  
*Due: December 6, 2007*  
**Arrays**  
(16 points)

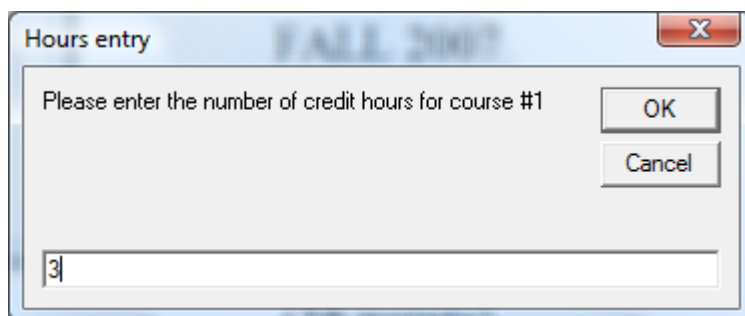
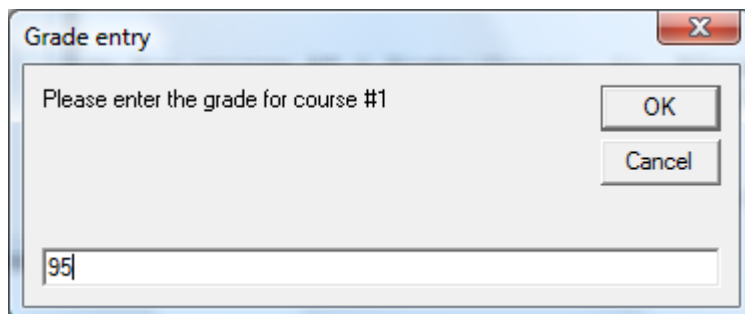
Objectives: Learn how to create and use arrays.

**What to do?**

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Read sections 7.1-7.2 of the textbook.

Design a VB program that calculates a GPA using information about three courses. The program interactively requests a grade (out of 100) and a number of credit hours for each course using the following dialogs generated by the `InputBox` function:



Declare two arrays of integers: one to store the grades, the other one to store the number of credit hours for each course:

```
Dim numPoints(3) As Integer  
Dim numHours(3) As Integer
```

Use a FOR...NEXT loop to enter all course information and to calculate the GPA. To calculate a GPA, declare two variables:

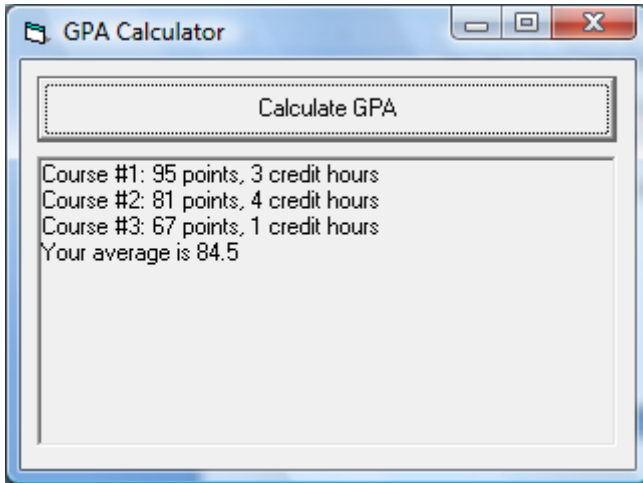
```
Dim numTotalPoints As Single  
Dim numTotalHours As Single
```

On each iteration of the loop, update these variables as follows:

```
numTotalPoints = numTotalPoints + numPoints(i) * numHours(i)
numTotalHours = numTotalHours + numHours(i)
```

Upon the completion of the loop, calculate the GPA as  $\text{numTotalPoints} / \text{numTotalHours}$ .

The interface of the completed program along with its output is shown below.



Design a VB program with the interface as shown above. Make sure the objects in your program are as follows:

<b>Object</b>	<b>Property</b>	<b>Setting</b>
frmGPA	Caption	GPA Calculator
cmdCalculateGPA	Caption	Calculate GPA
picResult		

Save your work.

### **What to submit**

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Use Blackboard Vista to submit the Visual Basic Form File with your program.