**MIS320 Spring 2011  
Assignment 5**

**Assignment:** Complete the required design models and develop (i.e. code) the application outlined in the business case below.

The following design models are required for this assignment:

* Class Design
  + Class Diagram
  + Class Definition (Class Name, description, definition of members, declarations and **pseudocode** for methods)

The submitted version of all design documentation should be electronic (in Word, PowerPoint, Visio…). Those files should be placed in the root folder of your VB Project and the entire project should be zipped up and submitted through the assignment on eLearning. At this point, you’ve had to submit several projects in the past, so anyone submitting just one VB file or just the .sln file will NOT be allowed to resubmit after the due date/time has passed**. The assignment will allow you to resubmit up until that time, so once you’ve uploaded, check your zip file on eLearning to make sure it contains the entire project!**

**Business Case:** Your firm has been contracted to develop a lemonade stand management system. Your team has been tasked with creating a software component that will allow the application to calculate a subtotal based on a number of cups and a price, calculate sales tax based on a subtotal, and calculate a total based on a subtotal and sales tax amount.

**Technical Specifications:** Your solution should result in one .dll file that can be used in the business logic layer of the application. The namespace for that .dll file should be BusinessLogic. Your class should be called POS (for Point Of Sale). Your methods should be declared as follows:

Function calcSubTotal(ByVal cups as integer, ByVal price as float)  
Function calcSalesTax(ByVal subTotal as float)  
Function calcTotal(ByVal subTotal as float, ByVal salesTax as float)

**Architectural Specifications:** Your solution will be used in the business logic layer of the application by the team building the user interface layer. **YOU SHOULD SUBMIT YOUR ENTIRE VB PROJECT, ZIPPED UP, AFTER YOU HAVE BUILT IT, NOT JUST THE .dll FILE.** Your grade will be based on the performance of the .dll file in your \bin\debug folder.