COM S 213 – Fall 2002

ASSIGNMENT #3:   **MenuBar and Menus**

DATE GIVEN: **9/16/02**

DATE DUE: **9/26/02**

PURPOSE:
To gain experience with using arrays and pointers. To begin attempts at designing classes from more abstract descriptions.

ASSIGNMENT:
Consider two classes named `MenuBar` and `Menu` that are used to represent a graphical menu bar and the menus contained in it.   The `MenuBar` class contains a static array of `Menu` objects.   As such it may only contain a predetermined maximum number of `Menu` objects. We'll arbitrarily set that maximum to 10 items.   The class will provide routines to do the following:

> Add a new `Menu` into the menu bar, at the "end"
> Insert a new menu before an existing one
> Remove a `Menu`
> Get the total number of `Menus` in the `MenuBar`
> Display all of the Menus (print something out to the console)

The `Menu` class will also need to be implemented. The `Menu` class is similar, only it has a an array of C++ Strings which represent the menu items in the array. It has the same set of routines available:

> Add a menu item into the menu at the "end"
> Insert a new menu item before an existing one
> Remove a menu item
> Get the total number of menu items in the `Menu`
> Display all of the menu items

Your job is to implement these two classes and test the functionality you implement. You may provide your own test data.

SUGGESTIONS:
Make sure you test for error conditions. There will be a good amount of leeway in how you implement what is described above, but please keep in mind everything we've learned in class to date.