
COM S 213 – Spring 2003

ASSIGNMENT #6: Function Pointers in the Menu Class

DATE GIVEN: 3/13/03

DATE DUE: 3/27/03

PURPOSE:

To apply what we've learned about function pointers to our Menu class.

ASSIGNMENT:

For this assignment you will start with Assignment #5 and make minor adjustments (The assignment #5 solution is posted on the course web site in the Assignments section).

This should be fairly short assignment. Please make sure you understand the concepts presented here!

In the old days of object oriented GUI programming (and to some extent GUI programming today) we used to provide *callback functions* which would be executed when some GUI event took place (menu choice, button press, etc.). These callbacks would be pointers to global functions. When tied to a GUI object, this callback would be “called” when the corresponding GUI element was manipulated.

For assignment #6, you are to create a global function named myCallback() which has the following prototype:

```
void myCallback(MenuItem *itemPtr);
```

You will then add a function pointer variable to the MenuItem class which allows a global function pointer to be stored in that class. MenuItem's constructor should be modified to allow this function pointer variable to be specified when a MenuItem is created. Finally, when the MenuItem is selected, this function pointer should be called passing “this” as a parameter.

The callback function prototyped above can simply print out a message indicating that the MenuObject in question had been “chosen”. It then must be passed to the constructor of every MenuItem which is created.

That's it! It is very simple, but involves some concepts which may trip you up. Please leave adequate time to do this "short" assignment!