**Object-Oriented Programming II Spring 2017**

**CIS 9410**

# Programming Assignment IV

This assignment represents the next phase of your implementation of the inventory management system. For this phase you should extend the **Inventory** class by adding the following member function.

**void Report();**

This function is used to generate an inventory report having the layout shown below.

Using the enhanced **Inventory** class you are to implement a menu-based multi-file program that repeatedly presents a user with a set of action options that allow the user to interact with and manage an inventory of items. For each option selected the program should respond accordingly. An option is specified as a single alphabetic character (an action designator) and a description string that describes the action to be taken if the single character is selected. The single character can be specified in uppercase or lowercase. (Action designators are not case sensitive.)

The allowable actions are:

**I -** (*insert*) Prompts user to input the data for a single item that is to be added to the inventory, assuming that no item with the same identification number is already in the inventory. An acknowledgement indicating whether or not the value was placed in the list should be output to the user.

**F** - (*find*) Prompts user to input an item identification number. If the inventory contains an item with the specified identification number, all of the data pertaining to that item is displayed on the monitor. Otherwise an appropriate message is displayed.

**D** - (*display*) Displays the name of the owner of the inventory, along with the data associated with each of the items in the inventory; essentially what is done using the **Inventory** class **Display()** function.

**S** - (*summary*) Displays summary data for the inventory, (that is, the owner of the inventory, the total number of different items in the inventory, and the total value of all of the items in the inventory (the inventory value). (This option does not display individual item data.)

**R** - (*remove*) Prompts user to enter an item identification number, and then removes from the inventory the item having that identification. An acknowledgement about the success or failure of the request should be output to the user.

**Q** - (*quit*) Terminate the program.

**Inventory Item Report**

**Report Layout**

1 2 3 4 5 6 7

1234567890123456789012345678901234567890123456789012345678901234567890

INVENTORY ITEM REPORT

OWNER: *inventory owner name*

ITEM # ITEM NAME U. PRICE QTY VALUE

99999 XXXX → → → X 999.99 9999 99999.99

99999 XXXX → → → X 999.99 9999 99999.99

↓ ↓ ↓ ↓ ↓

99999 XXXX → → → X 999.99 9999 99999.99

TOTALS: 999999.99

# OF ITEMS 9999

1 2 3 4 5 6 7

1234567890123456789012345678901234567890123456789012345678901234567890

The report content is depicted between the two horizontal lines. The horizontal lines and the column position indicators are not part of the report, and should not be output by your program. The item number should be displayed using 5 digits, using leading 0s if necessary.

Due Date: April 27, 2017