

**Student Lab Activity**

CIS170C Week 6 Lab Instructions

Lab 6 of 7: Menu-Driven Application

Lab Overview - Scenario/Summary

You will code, build, and execute a Retail Item class that holds data about an item in a retail store.You will utilize classes in the design of this program.

Learning outcomes:

1. To be able to understand the classes and objects used in a Windows console application
2. To be able to write a Windows console application

Deliverables

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| **Section** | **Deliverable** | **Points** |
| **Lab 6** | Step 5: Program Listing and Output | **40** |
| **All Steps** | Total | **40** |

Lab Steps

Preparation:

If you are using the Citrix remote lab, follow the login instructions located on the iLab tab in Course Home.

Locate the Visual Studio icon and launch the application.

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| **Part A: Password Program** |
| **Step 1:** Requirements |
| Write a windows console application that holds data about an item in a retail store.  Your class should be named RetailItem and should hold data about an item in a retail store. The class will have the following member variables:  description - string holding the description of the item,  unitsOnHand – int that holds the number of units in inventory  price – double that holds the price of the item  You will need two constructors, one that will accept arguments for esach member variable and one that will assign default values. You will also need to write mutator functions and accessor functions. Once you write the class, write a separate program that creates three RetailItem objects. The first one should use the default values and the other two should have values assigned upon creation. The user should input the variables (testing for the units on hand and price greater than 0).  Then the program should display all three RetailItems. Finally the program should tally the inventory for all three items and display it.  Welcome to the Retail store!  Price must be greater than 0.  Please enter the price for item 1: 33  Inventory must be greater than 0.  Please enter the units on hand for item 1: 10  Please enter the description for item 1: shirt  Display all items  Description: shirt  Units on hand: 10  Price: $33.00  Description: Jeans  Units on hand: 40  Price: $34.95  Description: Long sleeve shirt  Units on hand: 20  Price: $24.95  Display the total inventory  The total inventory is 70  Press any key to continue . . . |
| **Step 2:** Processing Logic |
| You will create a RetailItem class, a main program and a RetailItem.h for a total of three files as a demonstration of understanding, creating, and using classes.  Using the pseudocode below, write the code that will meet the requirements.  Create a Main program  Create three RetailItem objects  Ask user for price for item1 looping until value is greater than 0  Ask user for unitsOnHand for item2 looping until value is greater than 0  Ask user for description for item 1  Display all items  Add up total inventory and display total inventory  Create a RetailItem Class  Implement all member functions  Create a RetailItem.h  Private member variables should be description, unitsOnHand, and price  Public member functions include both constructors, and mutator and accessor functions for all three variables  . |
| **Step 3:** Create a New Project |
| Create a new project and name it LAB6. Write your code using the Processing Logic in Step 2. Make sure you save your program. |
| **Step 4:** Compile and Execute |
| 1. Compile your program and eliminate all syntax errors. 2. Build your program and verify the results of the program. Make corrections to the program logic if necessary until the results of the program execution are what you expect. |
| **Step 5:** Print Screenshots and Program |
| 1. Capture a screen print of your output. (Do a PRINT SCREEN and paste into an MS Word document.) 2. Copy your code and paste it into the same MS Word document that contains the screen print of your output. 3. Save the Word document as Lab06 \_LastName\_FirstInitial. |
| **END OF LAB** |