

## **Inventory Item as Object using a Constructor**

This assignment was given in class on Friday, March 15. The idea is to use an Item class to capture what you need for recording and displaying the details of an order from an online store like Amazon.

This assignment builds on the previous Object assignment. This time, you are to include two constructors, one that takes no arguments and sets the values of all of the object's variables to 0, and one that takes three arguments and sets initial values to the values that were passed (and sets the quantity to 1).

Read the section of Chapter 7 about constructors, and watch the Bucky Roberts video on constructors. Constructors are also discussed in the Wednesday March 13 Tegrity lecture.

For the assignment you must define and implement the Item class so that the code shown immediately below can produce the result shown below that. You will need to define the four variables in the private part of the Item class for the price, weight, description, and quantity. You will also need to create all of the functions that are used in the code below, and a new constructor that takes three input parameters for the price, weight, and description, but not quantity which should default to 1, as shown below.

Note that in order to declare a variable of type string, you will have to put an include `<string>` and using namespace std line in Item.h, and in order to do cout in the printDetails function, you will also need to include `<iostream>` in the Item.cpp file.

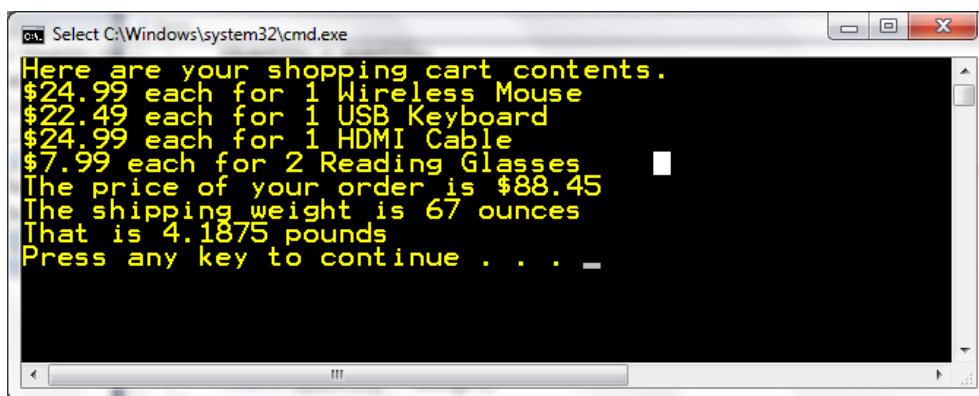
Name your main cpp file `<yourname>OrderReceipt.cpp`, e.g. `vanhilstOrderReceipt.cpp`. Turn in your main cpp file and the Item .cpp and .h files as a zip file that has your name in the name of the zip file. The contents of the main file and output are shown below.

```

#include <iostream>
#include <string>
#include "Item.h"
using namespace std;

int main() {
    double dTotalPrice = 0.0;
    int iTotalWeight = 0;
    Item itmMouse(24.99, 14, "Wireless Mouse");
    Item itmKeyboard(22.49, 27, "USB Keyboard");
    Item itmHDMI(24.99, 12, "HDMI Cable");
    Item itmGlasses(7.99, 7, "Reading Glasses");
    itmGlasses.setQuantity(2);
    // Show the details of the order using printDetails()
    cout << "Here are your shopping cart contents.\n";
    itmMouse.show();
    itmKeyboard.show();
    itmHDMI.show();
    itmGlasses.show();
    // Compute the total price and total weight in this section
    dTotalPrice += itmMouse.getOrderPrice();
    dTotalPrice += itmKeyboard.getOrderPrice();
    dTotalPrice += itmHDMI.getOrderPrice();
    dTotalPrice += itmGlasses.getOrderPrice();
    iTotalWeight += itmMouse.getOrderWeight();
    iTotalWeight += itmKeyboard.getOrderWeight();
    iTotalWeight += itmHDMI.getOrderWeight();
    iTotalWeight += itmGlasses.getOrderWeight();
    // Here we show the order details
    cout << "The price of your order is $" << dTotalPrice << endl;
    cout << "The shipping weight is " << iTotalWeight << " ounces\n";
    cout << "That is " << iTotalWeight / 16.0 << " pounds\n";
    return 0;
}

```



```

C:\Windows\system32\cmd.exe
Here are your shopping cart contents.
$24.99 each for 1 Wireless Mouse
$22.49 each for 1 USB Keyboard
$24.99 each for 1 HDMI Cable
$7.99 each for 2 Reading Glasses
The price of your order is $88.45
The shipping weight is 67 ounces
That is 4.1875 pounds
Press any key to continue . . .

```

When you have it working, submit the Item.h and Item.cpp files. Please zip them together in a zip file, and change the name of the zip file so that the filename starts with your name.