Week 07
Object Oriented Programming

Assignment 2 - Inventory Management System (due Oct 29th)

Write a program that simulates an inventory management system for a shop. Your program should have a class called item. A collection of items will be stored and tracked in an array called inventory.

The task here is to utilize *design* and *object oriented programming* and not simply just a working program. Functions and data members assigned to the item class must be done so with ***purpose****.* If the purpose of functionality does not fit the scheme of the class then it should exist *outside* of the class as an independent function.

Hint: Constantly ask yourself, what is an item, & what properties and functionality should an item have ***ownership*** over?

Grading Rubric:

5 Points Program Compiles

20 Points for Utilizing an Array of Class Objects

- **Purposed Functions within Class**
- **Class demonstrates Item ownership**

10 Points Efficiency

- **Well Purposed Control Flow**
- **Identifying Segments of Code for Reuse**

15 Points for Documentation

- **Well Thought Out Comments**
- **Descriptive Variable Names**

50 Points Total

Please refer to the sample output to view what is expected from you.

Example

===Welcome to the inventory helper=== -store hours will begin shortly- Please update your inventory... Enter item 1 to add to inventory. Please enter the product name. Milk Enter product manufacturer's id. 6019 Enter the retail value 4.65 Enter quantity available 11 Enter item 2 to add to inventory. Please enter the product name. Cookies Enter product manufacturer's id. 4118 Enter the retail value 2.49 Enter quantity available 40 Enter item 3 to add to inventory. Please enter the product name. TeaBags Enter product manufacturer's id. 8934 Enter the retail value 1.05 Enter quantity available 23 Enter item 4 to add to inventory. Please enter the product name. Donuts Enter product manufacturer's id. 0031 Enter the retail value 0.68 Enter quantity available 15 11 Milk left in stock at $4.65 item id 6019 40 Cookies left in stock at $2.49 item id 4118 23 TeaBags left in stock at $1.05 item id 8934 15 Donuts left in stock at $0.68 item id 31 Business hours are now open Would you like to perform a transaction? (y/n) y	====Menu==== Enter which item you would like to purchase 1. 11 Milk left in stock at $4.65 item id 6019 2. 40 Cookies left in stock at $2.49 item id 4118 3. 23 TeaBags left in stock at $1.05 item id 8934 4. 15 Donuts left in stock at $0.68 item id 31 1 How many would you like to buy? 14 Not enough Milk in stock (11) total stock Enter new amount 2 SOLD 2 Milk for $9.30 Would you like to perform another transaction? (y/n) y ====Menu==== Enter which item you would like to purchase 1. 9 Milk left in stock at $4.65 item id 6019 2. 40 Cookies left in stock at $2.49 item id 4118 3. 23 TeaBags left in stock at $1.05 item id 8934 4. 15 Donuts left in stock at $0.68 item id 31 2 How many would you like to buy? 7 SOLD 7 Cookies for $17.43 Would you like to perform another transaction? (y/n) y 2 items sold! Sale starting! Would you like to enter a discount %? (y/n) y Enter the custom discount percentage. 0.40 Price for Milk on sale for $2.79 Price for Cookies on sale for $1.49 Price for TeaBags on sale for $0.63 Price for Donuts on sale for $0.41	====Menu==== Enter which item you would like to purchase 1. 9 Milk left in stock at $2.79 item id 6019 2. 33 Cookies left in stock at $1.49 item id 4118 3. 23 TeaBags left in stock at $0.63 item id 8934 4. 15 Donuts left in stock at $0.41 item id 31 3 How many would you like to buy? 12 SOLD 12 TeaBags for $7.56 Would you like to perform another transaction? (y/n) n Closing Shop -- inventory left 9 Milk left in stock at $2.79 item id 6019 33 Cookies left in stock at $1.49 item id 4118 11 TeaBags left in stock at $0.63 item id 8934 15 Donuts left in stock at $0.41 item id 31