COMP 1409 Lab 6-a (2 points)

In-class lab

In this lab you will re-use class **RetailItem** from lab 2-b, and create a new class called **CashRegister** to simulate the sale of a retail item. Declare this symbolic constant at the top of your class

public static final double TAX_RATE = 0.06;

Here are the relevant attributes of class CashRegister:

RetailItem item
int quantitySold

Provide a default constructor and a non-default constructor. Both constructors use the appropriate mutator (set) methods to initialize the fields. The non-default constructor takes two parameters to initialize the instance variables.

Provide an accessor and mutator for each instance variable. The mutator for the quantity sold validates the passed parameter and uses it only if it is positive. The mutator for the RetailItem field validates the passed parameter and if null creates a new RetailItem object using the default constructor for the RetailItem class. If the parameter is not null it is assigned to the instance variable.

Provide a method called calculateSubtotal(). This method calculates **and returns** the subtotal cost which is the quantity sold multiplied by the retail price of the item. This method gets the retail price from the retail Item.

Provide a method called calculateTotal(). This method calculates **and returns** the total price which is the subtotal plus the sales tax.

Provide a method called printSalesReceipt(). This method calls the appropriate methods and displays the sales receipt which is printed in the following format:

```
Unit price: $5.00
Quantity: 2
Subtotal: $10.00
Sales tax: $0.60
Total: $10.60
```

Demonstrate your completed project to your instructor or TA before leaving the lab and be sure we have checked it off before you leave. A suggested solution will be given during the next class and labs that have not been checked off will not receive any points.