CSE 101 Programming Assignment 2

Due:

Sunday, 13-November-2022 by 23:59

Deliverables:

The following Java files should be submitted to MS Teams by the due date and time specified above. Submissions received after the deadline will be subject to the late policy described in the syllabus.
- o   TwoItemStore_{StudentNumber}.java

Specifications:

Overview: You will continue the program this week to maintain the inventory for a store. Do not forget your headers with @author and @since information. This program will be expanded in future weeks, so be sure you understand the concepts covered in this program.

Requirements: Write a program that will simulate the user interface for a store. It will first prompt the store owner for two (2) products where each will have:
1.   Name – String
     a.   Should be assigned as the value the owner enters with the first letter capitalized and all other letters lower case
2.   Quantity – Integer
     a.   If the value passed is negative, the program should display an error message and end
3.   Price – Floating point number
     a.   If the value passed is negative, the program should display an error message and end

Once the owner has entered the two products' information, the program will then prompt the customer for which of the two products he/she would like to purchase. Once the customer has completed the order, the program will display their total.

If the customer requests 0 or negative amount of something, the system will display an error message and return to the main menu. If the customer enters an invalid product number, the system will display an error message and return to the main menu.

Design:

When run, your program should ask the owner for the product information, then the customer for what he/she would like to purchase. When the customer decides to checkout, the total will be displayed.

```
****** Store Inventory ******
Enter the name of product 1: bread
Enter the number of Bread we have: 10
Enter the cost of Bread: 0.75
Enter the name of product 2: COLA
Enter the number of Cola we have: 3
Enter the cost of Cola: 2
****** Customer User Interface ******
Welcome to our store. We have the following. Please enter what you would like:
1 - Bread
2 - Cola
0 - to checkout
2
How many Cola would you like? 2
Welcome to our store. We have the following. Please enter what you would like:
1 - Bread
2 - Cola
0 - to checkout
1
How many Bread would you like? 3
Welcome to our store. We have the following. Please enter what you would like:
1 - Bread
2 - Cola
0 - to checkout
0
****** Customer Total ******
Bread - 3 X 0.75 = 2.25
Cola - 2 X 2.0 = 4.0
----------------------------
Total due - 6.25

****** Final Report ******
We now have the remaining amounts of our products:
Bread - 7
Cola - 1
```

If the store enters an invalid value for quantity or price, the system should display a message and exit:

```
****** Store Inventory ******
Enter the name of product 1: something
Enter the number of Something we have: -3
ERROR: value cannot be negative. Exiting.
```

```
****** Store Inventory ******
Enter the name of product 1: somethingelse
Enter the number of Somethingelse we have: 4
Enter the cost of Somethingelse: 5
Enter the name of product 2: IDon'tKnow
Enter the number of Idon'tknow we have: 5
Enter the cost of Idon'tknow: -10
ERROR: value cannot be negative. Exiting.
```

If the customer enters an invalid choice or invalid amount requested, the program should display an error message and return to the main menu. Examples shown below:

```
****** Customer User Interface ******
Welcome to our store. We have the following. Please enter what you would like:
1 - Bread
2 - Cola
0 - to checkout
1
How many Bread would you like? 45
ERROR: we do not have that many remaining
Welcome to our store. We have the following. Please enter what you would like:
1 - Bread
2 - Cola
0 - to checkout
1
How many Bread would you like? -5
ERROR: Invalind requested amount.
Welcome to our store. We have the following. Please enter what you would like:
1 - Bread
2 - Cola
0 - to checkout
3
ERROR: invalid menu option.
Welcome to our store. We have the following. Please enter what you would like:
1 - Bread
2 - Cola
0 - to checkout
L
```

Code: Create variables for the various values entered by the user and assign it using the Scanner object. As a user enters valid values update the values of the variables accordingly.

Test: You are responsible for testing your program. It is important to not rely solely on the examples presented in this Project description.

Grading:
MS Teams Submission: You can submit multiple times, however, we will only grade the last version that you submitted.

NOTE: If you use System.exit() in your code, you will automatically **receive 0 points** for this assignment.

Filename: You must name your java file according to the description above. If your file is not named in this way, your submission for this assignment will not be accepted.