Course:	INFO1232, Javascript I
Professor:	Daniel Malnati
Project:	Lab 8
Due Date:	Sunday, April 19th @ 11:59 pm
Submitting:	FOL Submissions folder, Lab 8
Student Name:	

Lab Description

1. Download "StarterCode_Lab8" from the FOL Submission Folder "Lab 8", rename the html file with your first name followed by an underscore and then "Lab8". For example, "Daniel_Lab8.html".

2. Your Web Page will act as an inventory management tool for a grocery store. The tool will display the expired products in the store and calculate the amount of money the store has lost to wasted(expired) product.

3. Create a constructor for the Product object, which will have the following parameters:

Product	
name	String – the name of the product
department	String – the section of the store responsible for the product
price	Float – the price of the item
expirationDate	Date Object – detailing the expiration date of the product

4. The starting code already has a global array for products, as well as a bunch of code calling the constructor to create some product objects and push them to the array. Feel free to add more if you like.

5. Create the following methods for the Product Object:

isExpired	*This function should **return** a Boolean.* ● If the product is expired return true. ● If the product is **not** expired return false. ***Use the Date Object methods to determine this.*** **(Current time – Expiration Time == Difference)** ● If the difference in time is a negative, the expiration date has not passed yet. ● If the difference in time is a positive, the expiration time has passed.

outputString	*This function should **return** a string* Concatenate the products properties into a readable string and return it. ● The order of the properties should match the web page **(Department, Product, Price, Shelf Life)** ● Separate each property with the '|' character ● For the *"Shelf Life"* property, call the product ***this.isExpired()*** method and concatenate either Expired or Not Expired depending on what the method returns. *Sample Output from this function:* "Produce | Avacados | $8.99 | Not Expired"

6. Create the following functions for the Web Page events:

calculateWaste()	*This function will output the total amount of waste each department has of expired product.* *Entire Store – Calculate total cost of expired product for all the departments.* *Bakery – Calculate total cost of expired product for the bakery department ONLY.* *Etc…* **In your function:** ● Using the dropdown, loop through and determine which products in the array you will using to calculate. o If the product department matches the one in the dropdown. ▪ If the product is expired add it to a totalExpiredAmount variable outside of the loop. ● Outside of the loop: o If there was no expired product for the selected department. Ouput: *[Department] reports no expired product!* o Otherwise, Output the amount the department has lost from waste: *[Department] reports $99.99 worth of expired product!* *See sample output below*

displayProducts()	*This function will output products depending on the filter.* *All – Everything outputs* *Expired – Only Expired Products Output* *Not Expired – Only Non-Expired Products Output* **In your function:** ● Using the dropdown value, loop through and determine which products in the array you will output. (Use the **isExpired()** you created to determine if the product is expired or not) ● Use the **outputString()** method you created to output to the div. Be sure to clear anything that was in the output area before outputting.

Marks	What are Marks Awarded For?	Earned
1	**Comments** ● Page documentation including name, date, purpose ● Script comments for each process	
1	**No Errors** ● Page does not throw any errors on load	
1	**Clean Output** ● Output is easy to read and does not output over existing data	
	(Web page runs and meets the lab requirements)	
5	**Product Constructor and Methods** ● Constructor uses 4 parameters to create object ● isExpired is a method of the Product Object ● outputString is a method of the Product Object ● isExpired behaves correctly ● outputString behaves correctly	
3	**Display Inventory** ● Outputs based on dropdown selection Correctly ● Uses isExpired to output the correct products ● Uses outputString to format a string for the product to be output to the webpage	
3	**Calculate Waste** ● Outputs if no expired product is detected ● Outputs total amount of expired product correctly based on dropdown selection ● Uses the Product methods in the function	
14	**Total**	

Sample Output:

Page Loads / All Products / Entire Store Waste Calculated

Grocery Store Waste Tracker

Store Inventory

Filter Products By: All

Department | Product | Price ($) | Shelf Life
Produce | Avacados | $8.99 | Not Expired
Bakery | Baguette | $5.99 | Not Expired
Deli | Beef | $14.99 | Not Expired
Produce | Pears | $5.50 | Not Expired
Dairy | 2L Chocolate Milk | $4.99 | Expired
Bakery | Pumpkin Pie | $10.50 | Expired
Produce | Grapes | $6.99 | Expired
Bakery | Loaf of Bread | $5.99 | Not Expired
Dairy | Cheddar Cheese | $10.99 | Expired
Dairy | Margarine | $8.99 | Expired
Deli | Salami | $5.99 | Expired
Produce | Oranges | $7.50 | Not Expired
Deli | Chicken | $21.99 | Expired
Deli | Turkey | $14.99 | Not Expired
Produce | Peppers | $3.99 | Expired
Deli | Ham | $9.99 | Not Expired
Bakery | Chocolate Cake | $19.99 | Expired
Bakery | 10kg White Flour | $12.99 | Not Expired

Waste Calculator

Calculate Waste By Department: Entire Store

Entire Store reports $94.42 worth of expired product

Expired Products / Department with Waste

Grocery Store Waste Tracker

Store Inventory

Filter Products By: Expired

Department | Product | Price ($) | Shelf Life
Dairy | 2L Chocolate Milk | $4.99 | Expired
Bakery | Pumpkin Pie | $10.50 | Expired
Produce | Grapes | $6.99 | Expired
Dairy | Cheddar Cheese | $10.99 | Expired
Dairy | Margarine | $8.99 | Expired
Deli | Salami | $5.99 | Expired
Deli | Chicken | $21.99 | Expired
Produce | Peppers | $3.99 | Expired
Bakery | Chocolate Cake | $19.99 | Expired

Waste Calculator

Calculate Waste By Department: Bakery

Bakery reports $30.49 worth of expired product

Non Expired Products / Department without Waste

Grocery Store Waste Tracker

Store Inventory

Filter Products By: Not Expired

Department | Product | Price ($) | Shelf Life
Produce | Avacados | $8.99 | Not Expired
Bakery | Baguette | $5.99 | Not Expired
Deli | Beef | $14.99 | Not Expired
Produce | Pears | $5.50 | Not Expired
Bakery | Loaf of Bread | $5.99 | Not Expired
Produce | Oranges | $7.50 | Not Expired
Deli | Turkey | $14.99 | Not Expired
Deli | Ham | $9.99 | Not Expired
Bakery | 10kg White Flour | $12.99 | Not Expired

Waste Calculator

Calculate Waste By Department: Vegan

Vegan reports no wasted product!