Assignment 5 – Add & Delete items from Cart

Lab A & B due: Tuesday, October 11, 2022. 11:59 pm ET
Lab C & D due: Thursday, October 06, 2022. 11:59 pm ET
This is an **individual** assignment.

1 Learning objectives

- Further practice your JavaScript skills. Practice loops and manipulating objects.
- Practice adapting your webpage dynamically based on user input: adapt and show updates.

2 Tasks

In this assignment, you will add some basic functionality to the Bake Shop **shopping cart** page.

The user will start with four items in their cart. You will use JavaScript to **display** those four items on the shopping cart page. When the user clicks one of the "remove" buttons, the corresponding item should be **removed** from the page. The total price, shown at the bottom of the page, should be **updated**.

2.1 Initialize the shopping cart

(1) Create either an array or a set to represent your cart.

(2) Create a `Roll` class (or copy it from HW4). Your class should look like this:

```
class Roll {
    constructor(rollType, rollGlazing, packSize, rollPrice) {
        this.type = rollType;
        this.glazing =  rollGlazing;
        this.size = packSize;
        this.basePrice = rollPrice;
    }
}
```

(3) Using the `Roll` class, make four new `Roll` objects and add them to your cart. The four cart items should be:

	Type	**Glazing**	**Pack Size**	**Calculated Price**
a.	Original	Sugar Milk	1	$2.49
b.	Walnut	Vanilla Milk	12	$39.90
c.	Raisin	Sugar Milk	3	$8.97
d.	Apple	Original	3	$10.47

To clarify, the `Roll` **class** `basePrice` property holds the *base price* for one single roll, similar to HW4. The `Roll` **objects** that you create here based on this table should calculate the item price using the roll base price, glazing price and pack size. You should re-use the price computation code from HW4 here. *Do not hard-code the calculated price.*

2.2 Display cart items on the page

(4) Write a function that takes a `Roll` as an argument, and appends the appropriate DOM elements to the shopping cart page (see mockup from HW2). You may find <template> elements to be useful here, though you are not required to use them. For each cart item, be sure to include:

- (4.1) The correct picture for the roll.
- (4.2) The name of the item (Original, Raisin, Walnut, etc.).
- (4.3) The glazing for the item (Original, Sugar Milk, etc.).
- (4.4) The pack size (1, 3, 6, 12).
- (4.5) The item price you calculate (not the roll base price).
- (4.6) A "remove" button for the item.

(5) For each item in your `cart`, call your function from Step 4 and display the items on the shopping cart page. Make sure to update the total price field as well.

2.3 Remove items from the cart

(6) When users click the "Remove" link at any entry,

- (6.1) the item should be removed from the `cart` array or set,
- (6.2) the corresponding Roll entry should be removed from the DOM,
- (6.3) and the price total at the bottom should be updated.

(7) Make sure to test your implementation against edge cases, e.g., when your cart is empty (`cart.length == 0`).

2.4 Use proper code style

Follow the code style instructions from previous assignments, i.e., external `js` files, no external libraries, follow code style guidelines.

3 Submission

(1) **Deploy** your webpage on GitHub.
Check that your code is online (**pushed**) & that your webpage works properly online.

(2) Submit your homework repository to **Gradescope**.
Verify that it was submitted to Gradescope before the deadline!