Group 4

L8: Group Work Project Alpha Web Storefront: Shopping Cart Web Page

Contributors:

Tim Pickering

Joshua Brandt

Viet Dang

Kyle Collamer

Development process:

We met at a weekly cadence, and then moved to ad hoc meetings when something came up or we had questions about what we needed to be doing next.

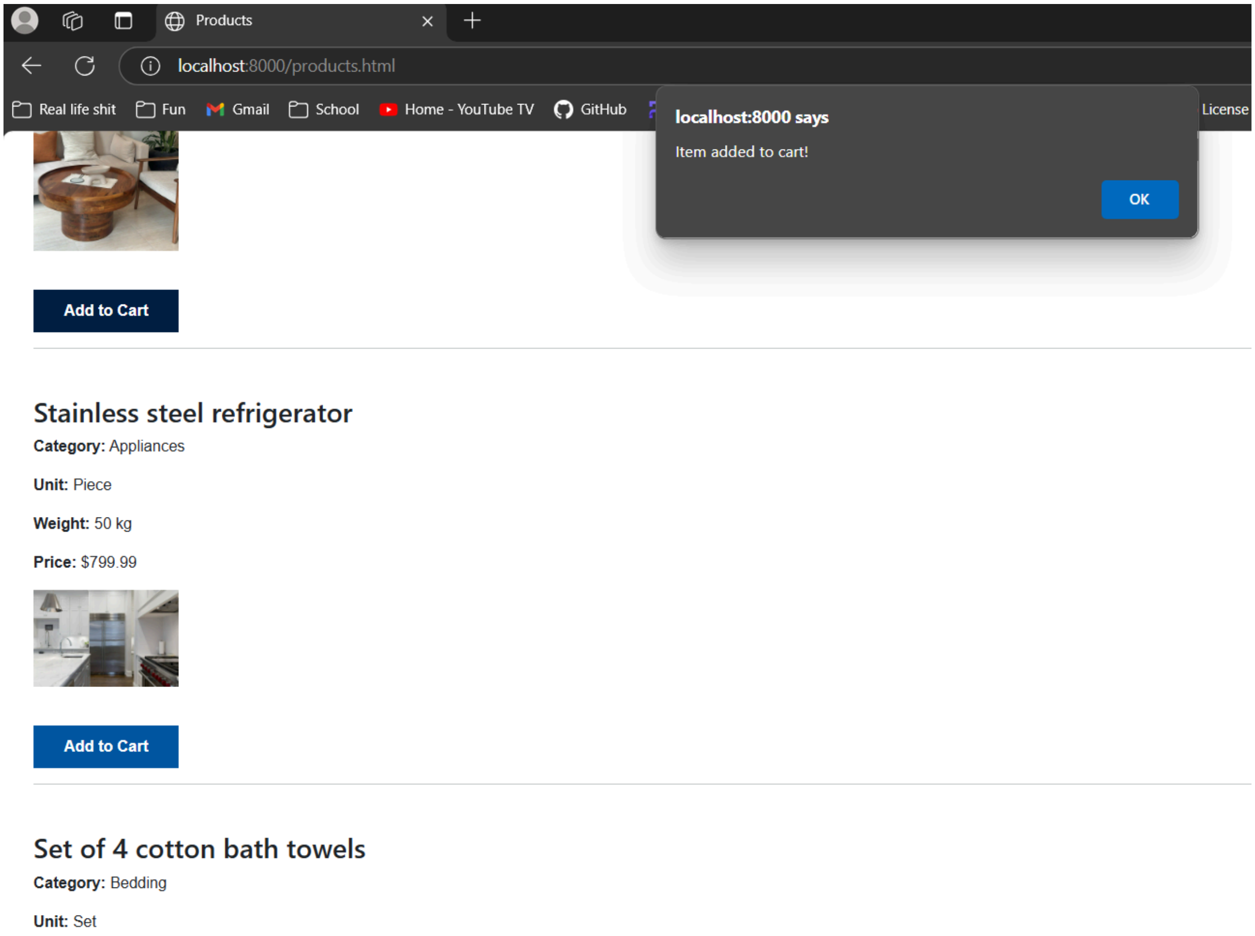
In our meetings, we would discuss what needs to be worked on/prioritized, and who would be doing that work. If you weren’t being asked to work on anything for the time being, your responsibility then became researching and understanding how to get the functions that weren’t yet being worked on, off the ground.

We would then delegate who should be working on what based on what they already know or have been researching.

We’ve been using a git repository for our coding, so it’s been relatively simple to maintain a clean coding pipeline without stepping on each other’s toes. Typically, we’re committing changes every time we’re making an edit, and testing along the way, usually locally at first, then the larger group will test the functionality once the commits are pushed/pulled.

Each section below contains what each member of the group worked on.

Adding items to cart-



localhost:8000 says

Item added to cart!

Stainless steel refrigerator

Category: Appliances

Unit: Piece

Weight: 50 kg

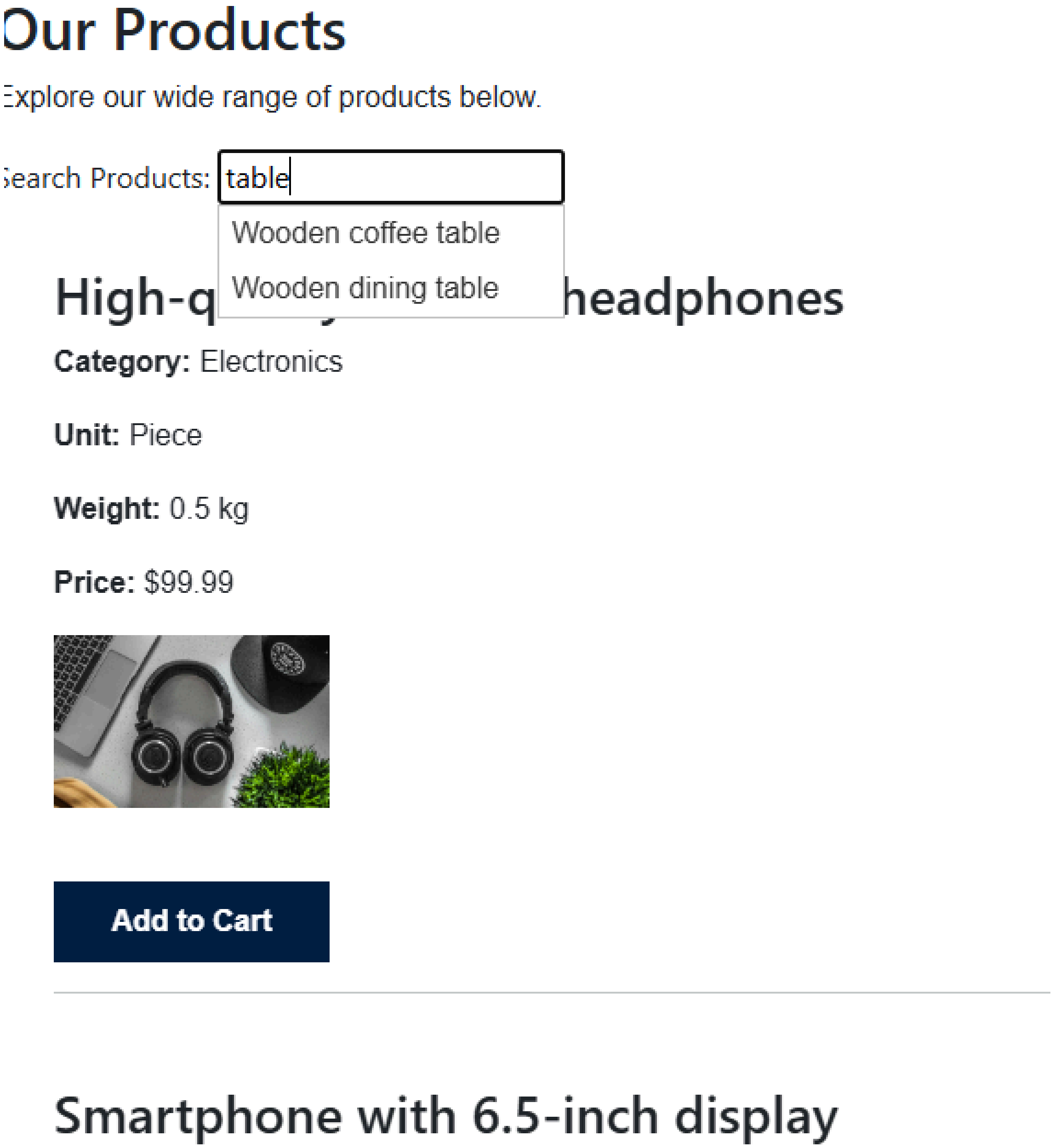
Price: $799.99

Set of 4 cotton bath towels

Category: Bedding

Unit: Set

Searching for items brings up suggestions-



Our Products

Explore our wide range of products below.

Search Products: table

Wooden coffee table

Wooden dining table

High-q headphones

Category: Electronics

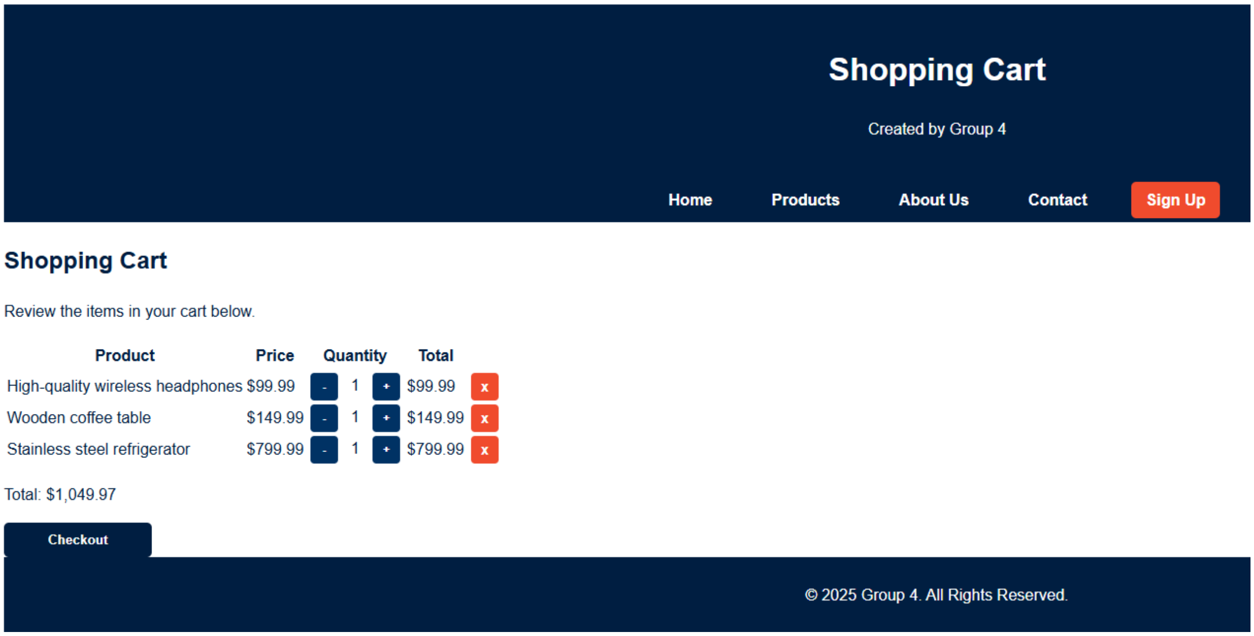
Unit: Piece

Weight: 0.5 kg

Price: $99.99

Smartphone with 6.5-inch display

Shopping cart page with buttons to increase/decrease quantity or remove entirely-



Shopping Cart

Review the items in your cart below.

Product	Price	Quantity			Total	
High-quality wireless headphones	$99.99	-	1	+	$99.99	x
Wooden coffee table	$149.99	-	1	+	$149.99	x
Stainless steel refrigerator	$799.99	-	1	+	$799.99	x

Total: $1,049.97

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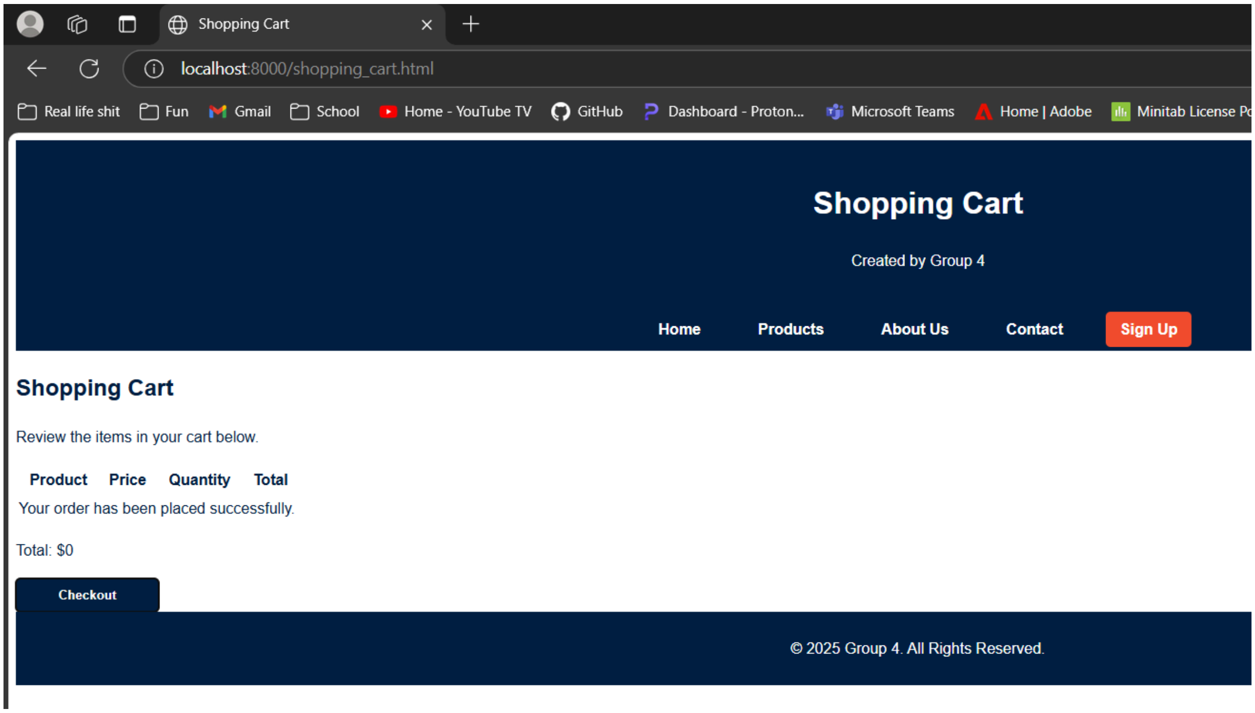
Checkout clears the cart and displays a thank you message-



Shopping Cart

Review the items in your cart below.

Product	Price	Quantity	Total

Your order has been placed successfully.

Total: $0

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Products.html code contributions and pictures:

Tim-

Wrote the search bar functionality and worked on getting the data to transfer between the cart and the products page. Added pictures and formatted to look more professional.

Joshua Brandt:

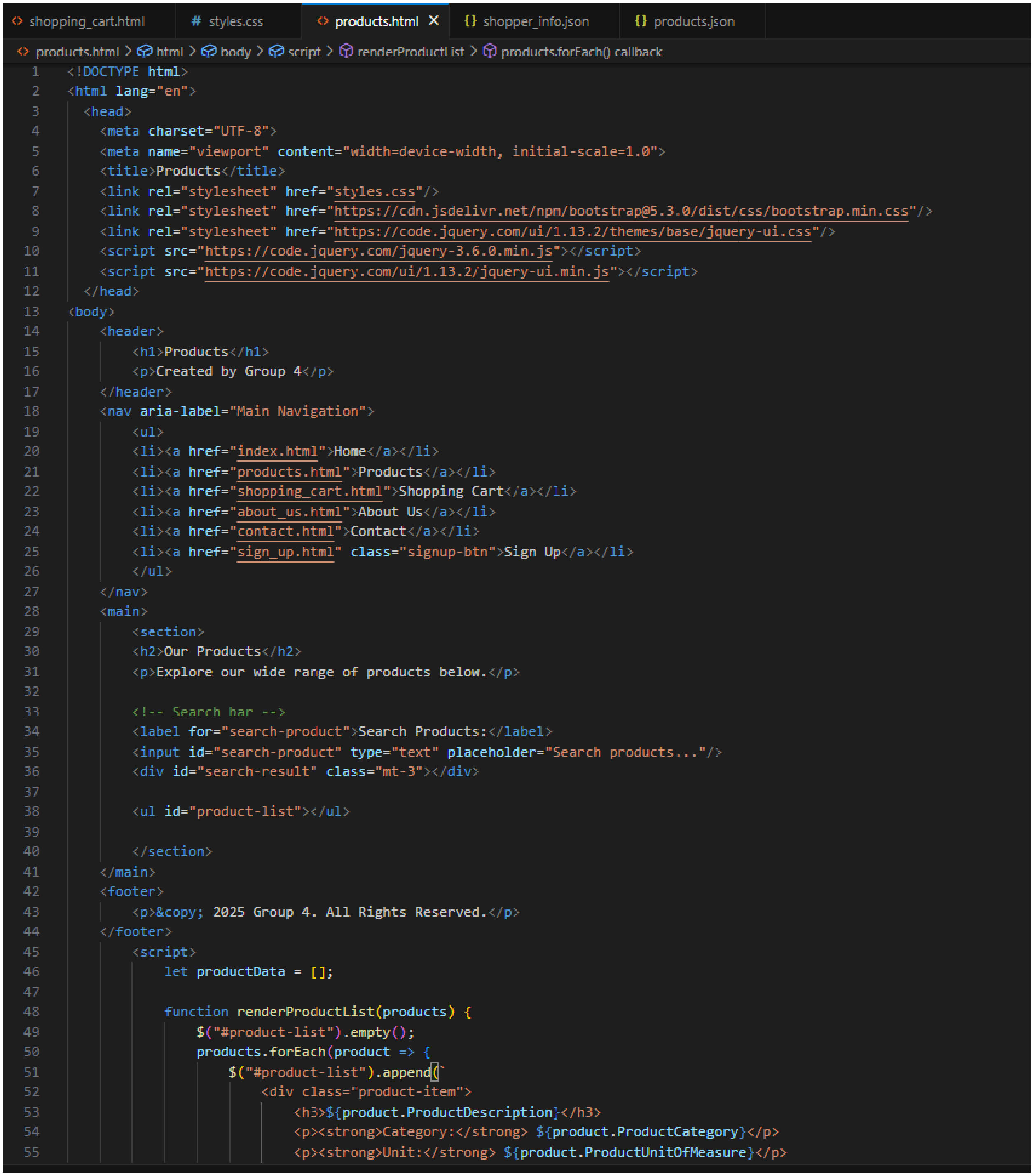
Added a check out button that tracks the items in the cart and is always within reach for easy checkout. The rest of the pages have lost the redundant shopping cart option in the navbar with this change. Also did some changes to our css file to allow for sticky buttons to have a place among our additions. Changed some early api attempts to allow for users to properly be stored. Still might need some tweaks.

Kyle Collamer

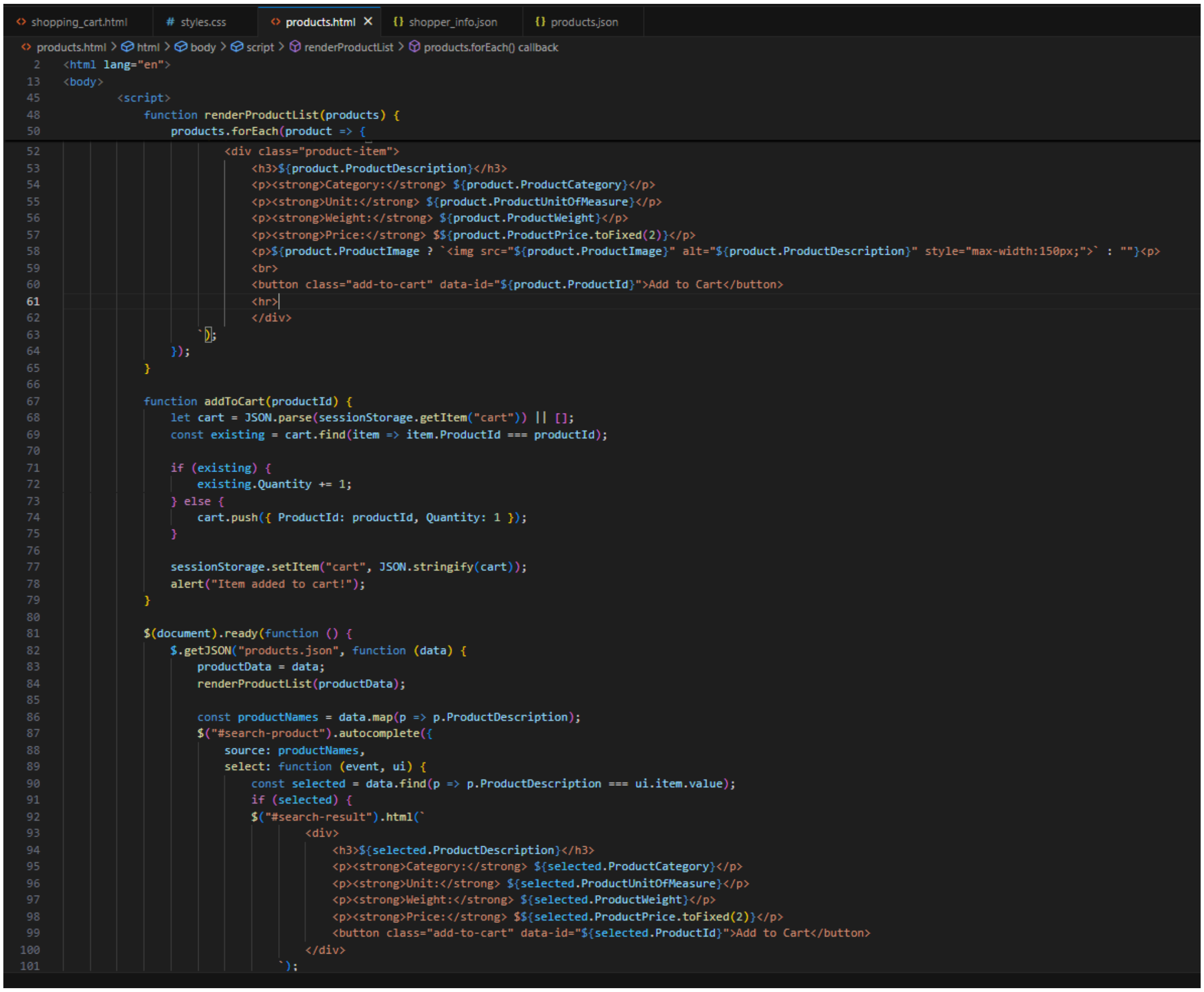
Assisted with the implementation of the products page in general and the html file. Especially made contributions to the appearance of the website. Added functionality to display text when hovering over buttons. Pair programmed with other members of the group with various file additions to the repository.

Viet Dang:

Fixed the display of the navigation bar after new features that were implemented borked the appearance of the text color for the links in the bar. And reviewed the HTML structure of our website for any other glaring issues in the website’s appearance after the new features were implemented

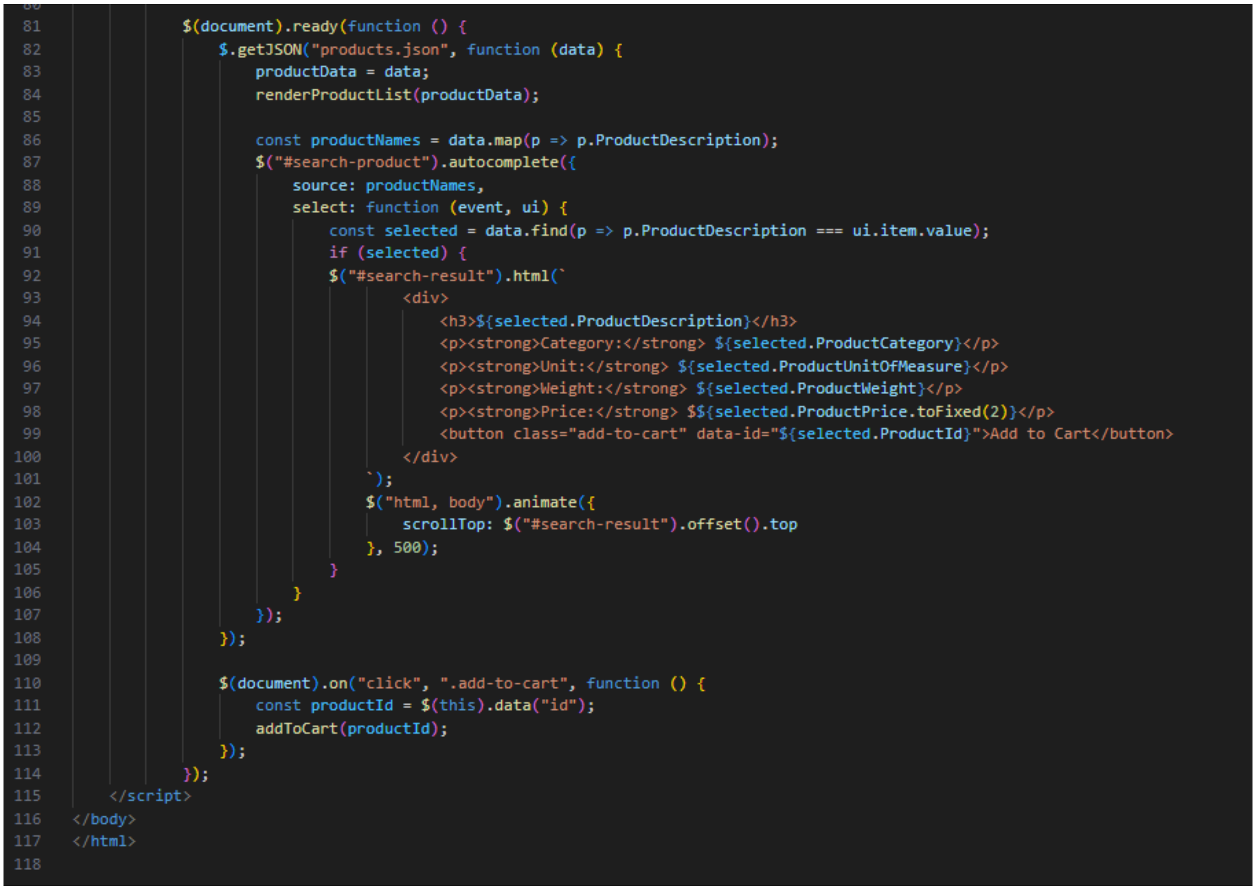

shopping_cart.html
styles.css
products.html
shopper_info.json
products.json
products.html > html > body > script > renderProductList > products.forEach() callback

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Products</title>
    <link rel="stylesheet" href="styles.css"/>
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css"/>
    <link rel="stylesheet" href="https://code.jquery.com/ui/1.13.2/themes/base/jquery-ui.css"/>
    <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
    <script src="https://code.jquery.com/ui/1.13.2/jquery-ui.min.js"></script>
  </head>
<body>
    <header>
        <h1>Products</h1>
        <p>Created by Group 4</p>
    </header>
    <nav aria-label="Main Navigation">
        <ul>
        <li><a href="index.html">Home</a></li>
        <li><a href="products.html">Products</a></li>
        <li><a href="shopping_cart.html">Shopping Cart</a></li>
        <li><a href="about_us.html">About Us</a></li>
        <li><a href="contact.html">Contact</a></li>
        <li><a href="sign_up.html" class="signup-btn">Sign Up</a></li>
        </ul>
    </nav>
    <main>
        <section>
        <h2>Our Products</h2>
        <p>Explore our wide range of products below.</p>

        <!-- Search bar -->
        <label for="search-product">Search Products:</label>
        <input id="search-product" type="text" placeholder="Search products..."/>
        <div id="search-result" class="mt-3"></div>

        <ul id="product-list"></ul>

        </section>
    </main>
    <footer>
        <p>&copy; 2025 Group 4. All Rights Reserved.</p>
    </footer>
        <script>
            let productData = [];

            function renderProductList(products) {
                $("#product-list").empty();
                products.forEach(product => {
                    $("#product-list").append(`
                        <div class="product-item">
                            <h3>${product.ProductDescription}</h3>
                            <p><strong>Category:</strong> ${product.ProductCategory}</p>
                            <p><strong>Unit:</strong> ${product.ProductUnitOfMeasure}</p>
```



shopping_cart.html
styles.css
products.html
shopper_info.json
products.json
products.html > html > body > script > renderProductList > products.forEach() callback

```
<html lang="en">
<body>
        <script>
            function renderProductList(products) {
                products.forEach(product => {
                        <div class="product-item">
                            <h3>${product.ProductDescription}</h3>
                            <p><strong>Category:</strong> ${product.ProductCategory}</p>
                            <p><strong>Unit:</strong> ${product.ProductUnitOfMeasure}</p>
                            <p><strong>Weight:</strong> ${product.ProductWeight}</p>
                            <p><strong>Price:</strong> $${product.ProductPrice.toFixed(2)}</p>
                            <p>${product.ProductImage ? `<img src="${product.ProductImage}" alt="${product.ProductDescription}" style="max-width:150px;">` : ""}<p>
                            <br>
                            <button class="add-to-cart" data-id="${product.ProductId}">Add to Cart</button>
                            <hr>
                            </div>
                    `);
                });
            }

            function addToCart(productId) {
                let cart = JSON.parse(sessionStorage.getItem("cart")) || [];
                const existing = cart.find(item => item.ProductId === productId);

                if (existing) {
                    existing.Quantity += 1;
                } else {
                    cart.push({ ProductId: productId, Quantity: 1 });
                }

                sessionStorage.setItem("cart", JSON.stringify(cart));
                alert("Item added to cart!");
            }

            $(document).ready(function () {
                $.getJSON("products.json", function (data) {
                    productData = data;
                    renderProductList(productData);

                    const productNames = data.map(p => p.ProductDescription);
                    $("#search-product").autocomplete({
                        source: productNames,
                        select: function (event, ui) {
                            const selected = data.find(p => p.ProductDescription === ui.item.value);
                            if (selected) {
                            $("#search-result").html(`
                                    <div>
                                        <h3>${selected.ProductDescription}</h3>
                                        <p><strong>Category:</strong> ${selected.ProductCategory}</p>
                                        <p><strong>Unit:</strong> ${selected.ProductUnitOfMeasure}</p>
                                        <p><strong>Weight:</strong> ${selected.ProductWeight}</p>
                                        <p><strong>Price:</strong> $${selected.ProductPrice.toFixed(2)}</p>
                                        <button class="add-to-cart" data-id="${selected.ProductId}">Add to Cart</button>
                                    </div>
                                `);
```

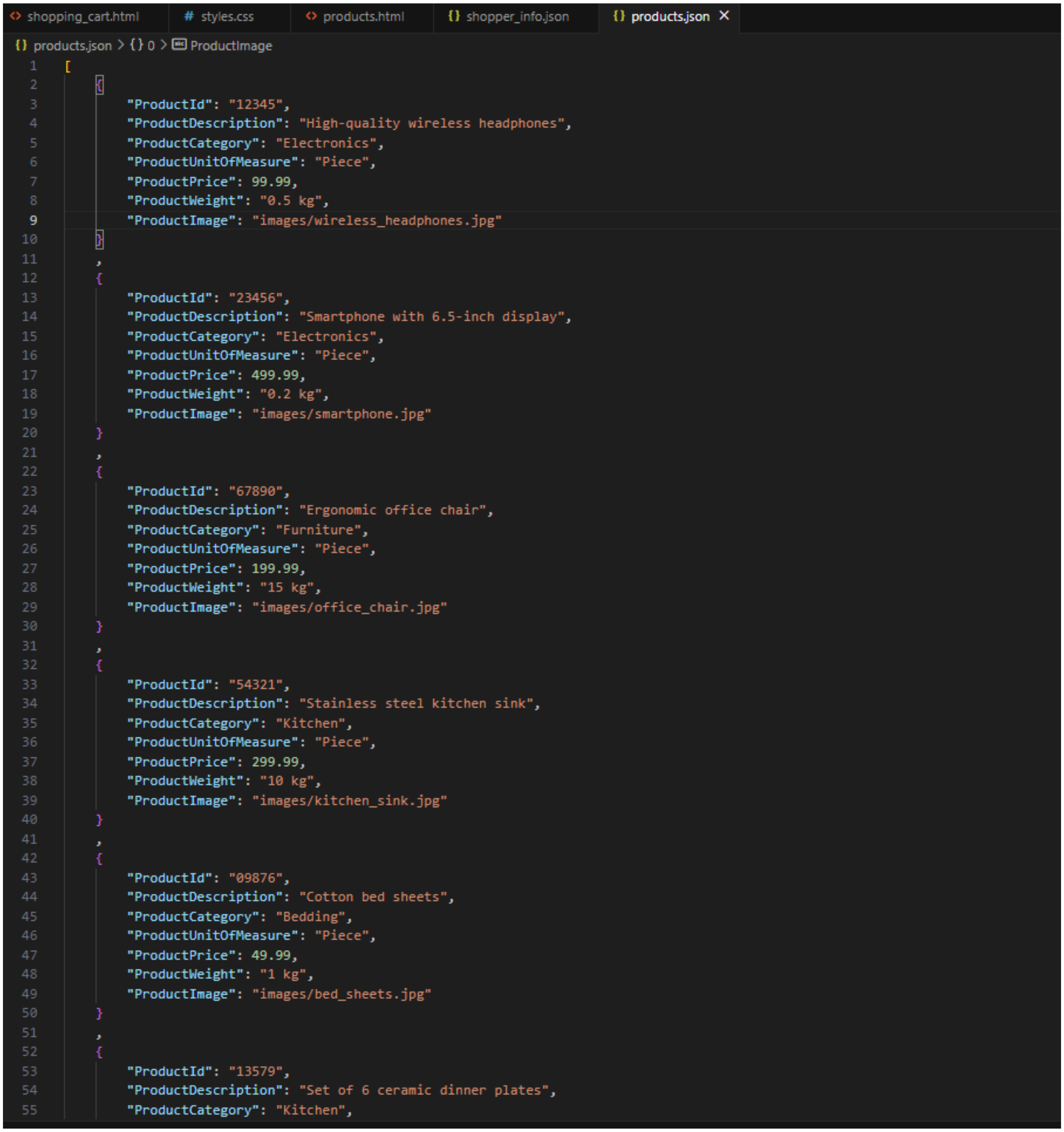


```
            $(document).ready(function () {
                $.getJSON("products.json", function (data) {
                    productData = data;
                    renderProductList(productData);

                    const productNames = data.map(p => p.ProductDescription);
                    $("#search-product").autocomplete({
                        source: productNames,
                        select: function (event, ui) {
                            const selected = data.find(p => p.ProductDescription === ui.item.value);
                            if (selected) {
                            $("#search-result").html(`
                                    <div>
                                        <h3>${selected.ProductDescription}</h3>
                                        <p><strong>Category:</strong> ${selected.ProductCategory}</p>
                                        <p><strong>Unit:</strong> ${selected.ProductUnitOfMeasure}</p>
                                        <p><strong>Weight:</strong> ${selected.ProductWeight}</p>
                                        <p><strong>Price:</strong> $${selected.ProductPrice.toFixed(2)}</p>
                                        <button class="add-to-cart" data-id="${selected.ProductId}">Add to Cart</button>
                                    </div>
                                `);
                                $("html, body").animate({
                                    scrollTop: $("#search-result").offset().top
                                }, 500);
                            }
                        }
                    });
                });

                $(document).on("click", ".add-to-cart", function () {
                    const productId = $(this).data("id");
                    addToCart(productId);
                });
            });
    </script>
</body>
</html>
```

Products.json code pictures and contributions:

Tim –

Added picture locations to JSON file.



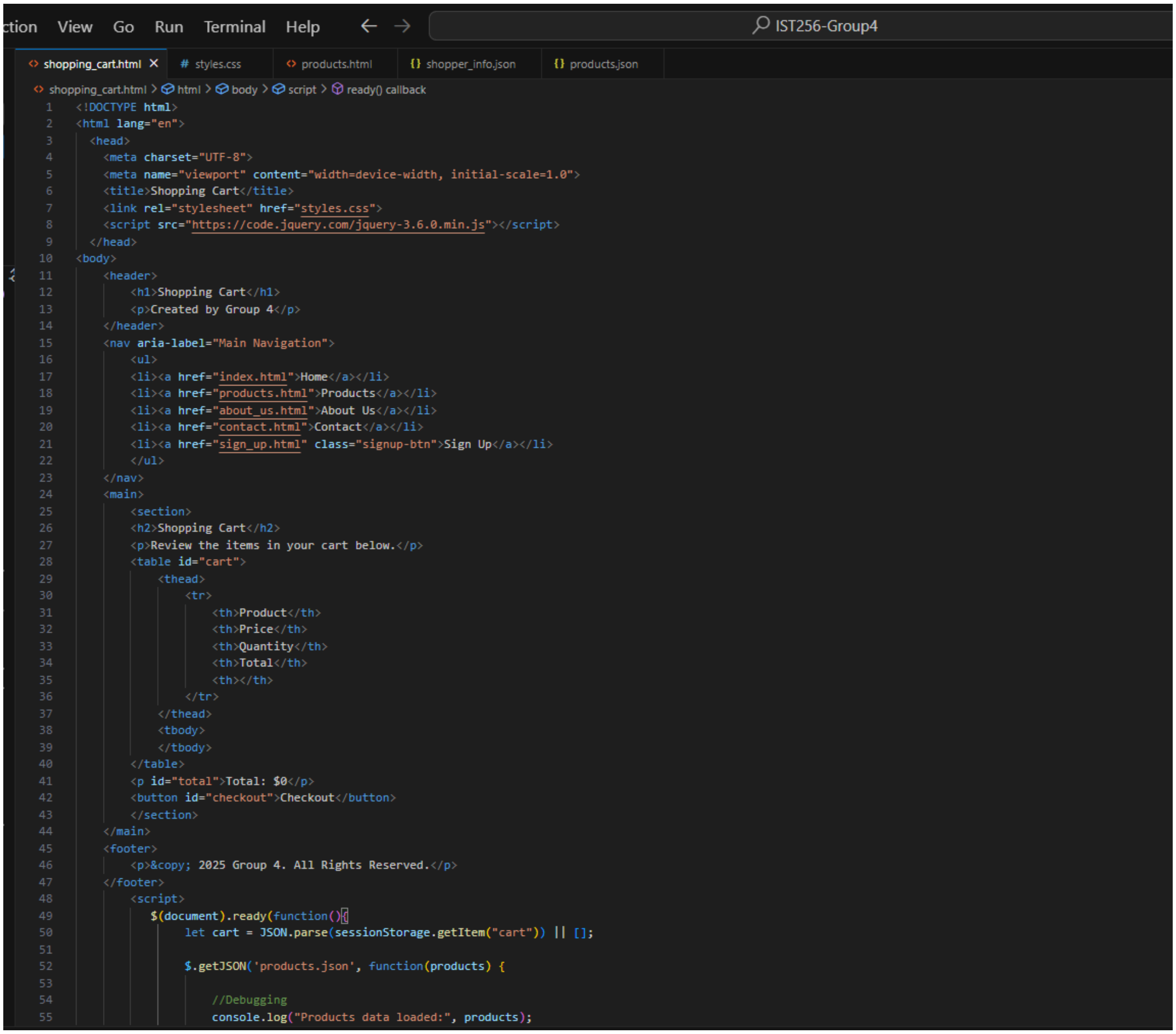
```json
[
    {
        "ProductId": "12345",
        "ProductDescription": "High-quality wireless headphones",
        "ProductCategory": "Electronics",
        "ProductUnitOfMeasure": "Piece",
        "ProductPrice": 99.99,
        "ProductWeight": "0.5 kg",
        "ProductImage": "images/wireless_headphones.jpg"
    }
    ,
    {
        "ProductId": "23456",
        "ProductDescription": "Smartphone with 6.5-inch display",
        "ProductCategory": "Electronics",
        "ProductUnitOfMeasure": "Piece",
        "ProductPrice": 499.99,
        "ProductWeight": "0.2 kg",
        "ProductImage": "images/smartphone.jpg"
    }
    ,
    {
        "ProductId": "67890",
        "ProductDescription": "Ergonomic office chair",
        "ProductCategory": "Furniture",
        "ProductUnitOfMeasure": "Piece",
        "ProductPrice": 199.99,
        "ProductWeight": "15 kg",
        "ProductImage": "images/office_chair.jpg"
    }
    ,
    {
        "ProductId": "54321",
        "ProductDescription": "Stainless steel kitchen sink",
        "ProductCategory": "Kitchen",
        "ProductUnitOfMeasure": "Piece",
        "ProductPrice": 299.99,
        "ProductWeight": "10 kg",
        "ProductImage": "images/kitchen_sink.jpg"
    }
    ,
    {
        "ProductId": "09876",
        "ProductDescription": "Cotton bed sheets",
        "ProductCategory": "Bedding",
        "ProductUnitOfMeasure": "Piece",
        "ProductPrice": 49.99,
        "ProductWeight": "1 kg",
        "ProductImage": "images/bed_sheets.jpg"
    }
    ,
    {
        "ProductId": "13579",
        "ProductDescription": "Set of 6 ceramic dinner plates",
        "ProductCategory": "Kitchen",
```

Shopping_cart code pictures and contributions:

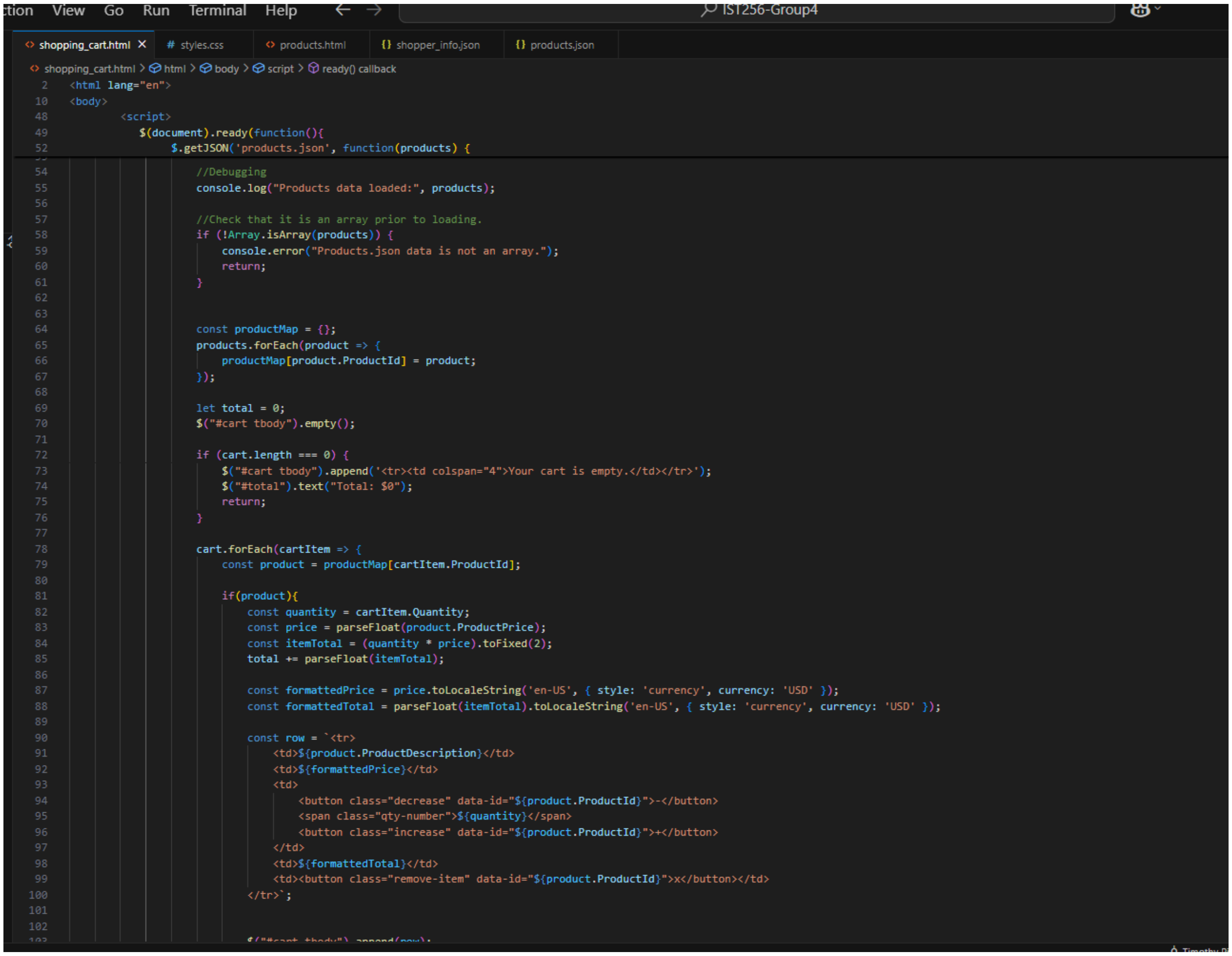
Tim –

Built out the sessionStorage function to grab the data stored in the session from the products page. Built the increase/decrease quantity and remove buttons so that what is being purchased can be edited directly in the cart.

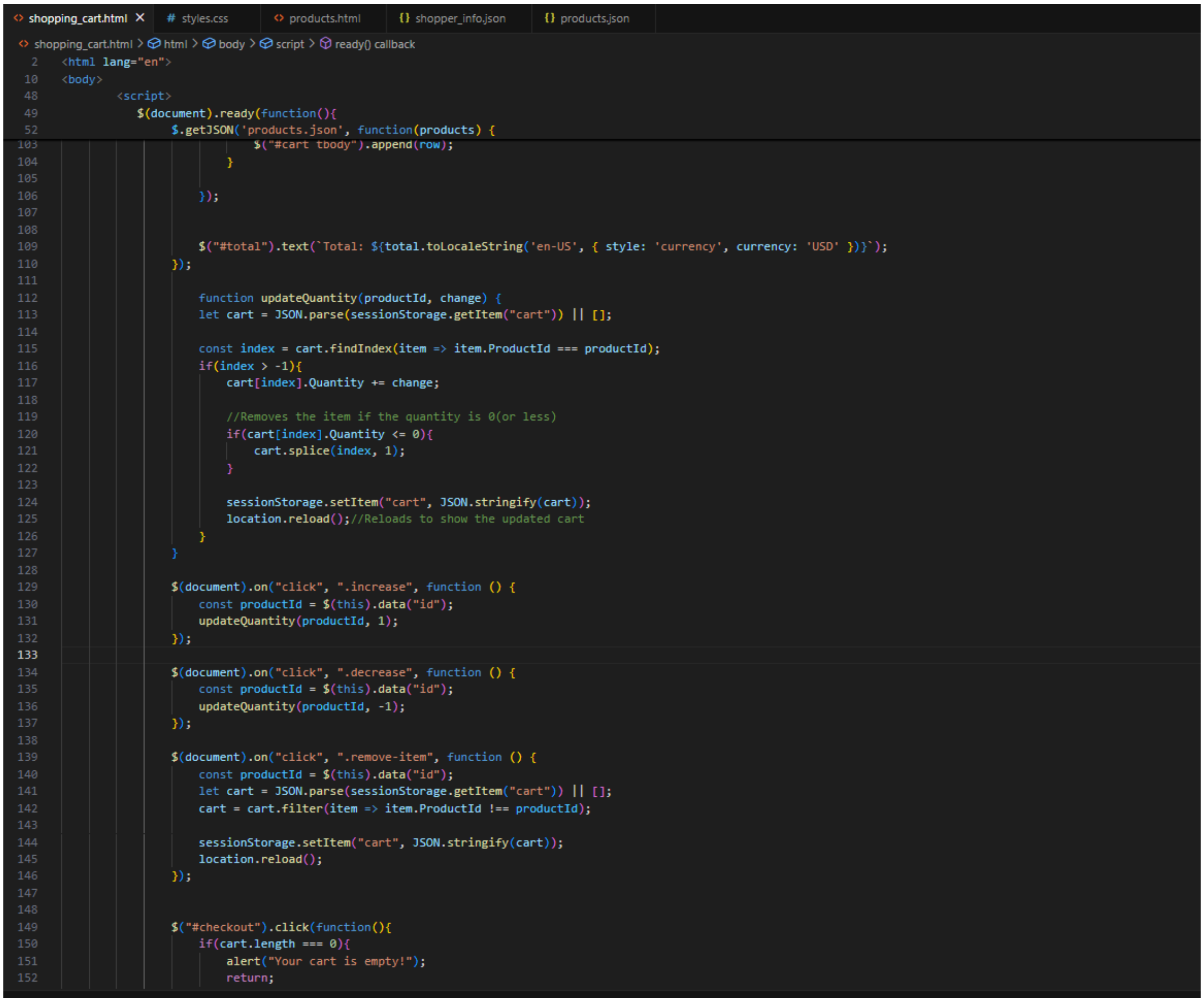
Made a function for checking out that ensures the cart contents are cleared and displays a nice confirmation message that the order was placed.



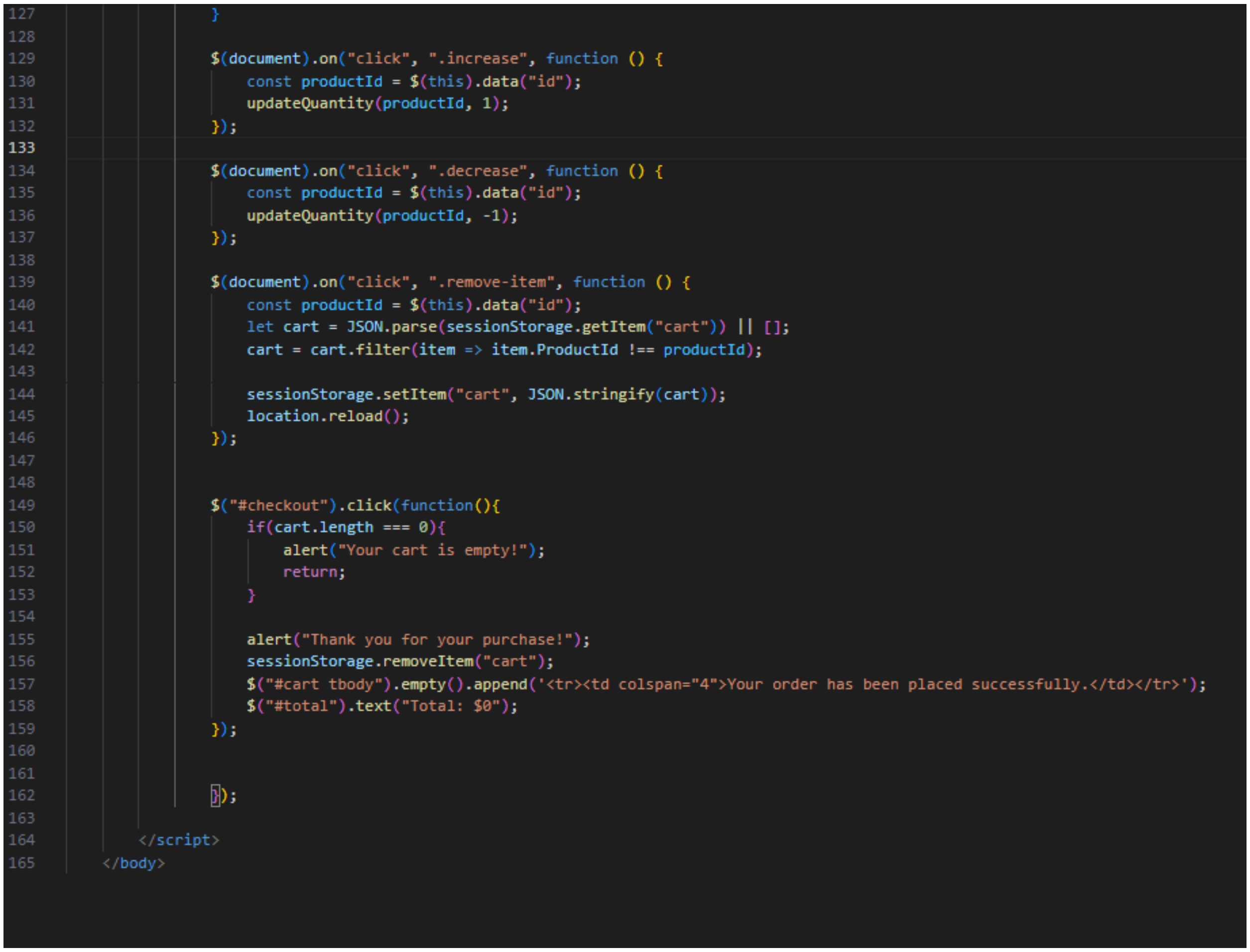
```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Shopping Cart</title>
    <link rel="stylesheet" href="styles.css">
    <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
  </head>
<body>
    <header>
        <h1>Shopping Cart</h1>
        <p>Created by Group 4</p>
    </header>
    <nav aria-label="Main Navigation">
        <ul>
        <li><a href="index.html">Home</a></li>
        <li><a href="products.html">Products</a></li>
        <li><a href="about_us.html">About Us</a></li>
        <li><a href="contact.html">Contact</a></li>
        <li><a href="sign_up.html" class="signup-btn">Sign Up</a></li>
        </ul>
    </nav>
    <main>
        <section>
        <h2>Shopping Cart</h2>
        <p>Review the items in your cart below.</p>
        <table id="cart">
            <thead>
                <tr>
                    <th>Product</th>
                    <th>Price</th>
                    <th>Quantity</th>
                    <th>Total</th>
                    <th></th>
                </tr>
            </thead>
            <tbody>
            </tbody>
        </table>
        <p id="total">Total: $0</p>
        <button id="checkout">Checkout</button>
        </section>
    </main>
    <footer>
        <p>&copy; 2025 Group 4. All Rights Reserved.</p>
    </footer>
        <script>
           $(document).ready(function(){
                let cart = JSON.parse(sessionStorage.getItem("cart")) || [];

                $.getJSON('products.json', function(products) {

                    //Debugging
                    console.log("Products data loaded:", products);
```



```
<html lang="en">
<body>
        <script>
            $(document).ready(function(){
                $.getJSON('products.json', function(products) {
                    //Debugging
                    console.log("Products data loaded:", products);

                    //Check that it is an array prior to loading.
                    if (!Array.isArray(products)) {
                        console.error("Products.json data is not an array.");
                        return;
                    }


                    const productMap = {};
                    products.forEach(product => {
                        productMap[product.ProductId] = product;
                    });

                    let total = 0;
                    $("#cart tbody").empty();

                    if (cart.length === 0) {
                        $("#cart tbody").append('<tr><td colspan="4">Your cart is empty.</td></tr>');
                        $("#total").text("Total: $0");
                        return;
                    }

                    cart.forEach(cartItem => {
                        const product = productMap[cartItem.ProductId];

                        if(product){
                            const quantity = cartItem.Quantity;
                            const price = parseFloat(product.ProductPrice);
                            const itemTotal = (quantity * price).toFixed(2);
                            total += parseFloat(itemTotal);

                            const formattedPrice = price.toLocaleString('en-US', { style: 'currency', currency: 'USD' });
                            const formattedTotal = parseFloat(itemTotal).toLocaleString('en-US', { style: 'currency', currency: 'USD' });

                            const row = `<tr>
                                <td>${product.ProductDescription}</td>
                                <td>${formattedPrice}</td>
                                <td>
                                    <button class="decrease" data-id="${product.ProductId}">-</button>
                                    <span class="qty-number">${quantity}</span>
                                    <button class="increase" data-id="${product.ProductId}">+</button>
                                </td>
                                <td>${formattedTotal}</td>
                                <td><button class="remove-item" data-id="${product.ProductId}">x</button></td>
                            </tr>`;


                            $("#cart tbody").append(row);
```



```
<html lang="en">
<body>
        <script>
            $(document).ready(function(){
                $.getJSON('products.json', function(products) {
                            $("#cart tbody").append(row);
                        }

                    });


                    $("#total").text(`Total: ${total.toLocaleString('en-US', { style: 'currency', currency: 'USD' })}`);
                });

                    function updateQuantity(productId, change) {
                    let cart = JSON.parse(sessionStorage.getItem("cart")) || [];

                    const index = cart.findIndex(item => item.ProductId === productId);
                    if(index > -1){
                        cart[index].Quantity += change;

                        //Removes the item if the quantity is 0(or less)
                        if(cart[index].Quantity <= 0){
                            cart.splice(index, 1);
                        }

                        sessionStorage.setItem("cart", JSON.stringify(cart));
                        location.reload();//Reloads to show the updated cart
                    }
                }

                $(document).on("click", ".increase", function () {
                    const productId = $(this).data("id");
                    updateQuantity(productId, 1);
                });

                $(document).on("click", ".decrease", function () {
                    const productId = $(this).data("id");
                    updateQuantity(productId, -1);
                });

                $(document).on("click", ".remove-item", function () {
                    const productId = $(this).data("id");
                    let cart = JSON.parse(sessionStorage.getItem("cart")) || [];
                    cart = cart.filter(item => item.ProductId !== productId);

                    sessionStorage.setItem("cart", JSON.stringify(cart));
                    location.reload();
                });


                $("#checkout").click(function(){
                    if(cart.length === 0){
                        alert("Your cart is empty!");
                        return;
```



```
                }

                $(document).on("click", ".increase", function () {
                    const productId = $(this).data("id");
                    updateQuantity(productId, 1);
                });

                $(document).on("click", ".decrease", function () {
                    const productId = $(this).data("id");
                    updateQuantity(productId, -1);
                });

                $(document).on("click", ".remove-item", function () {
                    const productId = $(this).data("id");
                    let cart = JSON.parse(sessionStorage.getItem("cart")) || [];
                    cart = cart.filter(item => item.ProductId !== productId);

                    sessionStorage.setItem("cart", JSON.stringify(cart));
                    location.reload();
                });


                $("#checkout").click(function(){
                    if(cart.length === 0){
                        alert("Your cart is empty!");
                        return;
                    }

                    alert("Thank you for your purchase!");
                    sessionStorage.removeItem("cart");
                    $("#cart tbody").empty().append('<tr><td colspan="4">Your order has been placed successfully.</td></tr>');
                    $("#total").text("Total: $0");
                });


                });

        </script>
    </body>
```