Homework 6: Reflection

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1. **Links**

   Link to the Website

   Link to the Source Code

2. **Challenges and Overcoming Errors**

   One of the biggest challenges was making the cart interfaces interactive to users' input, which required me to understand several advanced concepts of JavaScript. The Reference & Guide Section from MDN Web Docs helped me immensely. Implementing functions like calculating the total number of items in the carts required to use JavaScript Array, specifically, Array.prototype.reduce. For removing selected items in the cart, I leveraged Array.prototype.slice and Spread syntax. The step-by-step documents guided me through each concept and helped me apply them to my website. One error I found was regarding font import. I found the font I imported was not applied to the website, which I could find out by checking the website on other people's computers. On my side, the website was loading the local fonts installed on my laptop, so the error was not easily recognizable. I checked the console under the developer tool and found the error message about 'the wrong font URL.' I updated the URL to fix it.

3. **Programming concepts learned (5+ concepts with examples)**
   - **LocalStorage**: Local Storage is used for saving the array of cart and wishlist items. They are kept items in place while the users are navigating the website.
   - **HTML DOM createElement Method:** On the cart page, new buttons for removing the item should be created as items are added to the cart. I used createElement Method to implement the buttons created along with the list of items in the cart and wishlist.
   - **Javascript array prototypes:** Array.prototype.reduce was used to calculate the total sum of cart item quantities. Array.prototype.slice was also used to delete an element from a list.
   - **Spread operator:** When deleting an item from the cart item list, the spread operator merge the two sublists, which are sliced from the cart list without the item to be deleted.

- **JSON:** I learned to implement JSON.stringify and JSON.parse to save items to LocalStorage and get them from LocalStorage.

4. **External Resources**

   https://www.w3schools.com/
   https://stackoverflow.com/
   https://unsplash.com/
   https://www.cufonfonts.com/
   https://codepen.io/
   https://developer.mozilla.org/en-US/

5. **Extra Credit**
   - **The Wishlist Functionality** (max 3pts) – implemented on “Bed Pillow detail page” & “Index page”
     - Users can add and remove items to their wishlist. I created a separate wishlist page which is accessible by clicking the heart icon on the navigation bar. The wishlist saves the item that the user selected. Only the items with the same filler, color, and pillow type are considered the same item.
     - **[Bonus]** The heart icon on the “Add to Wishlist” button visually indicates that the item is added to the wishlist. When the item is already in the wishlist, the button text shows “Remove from Wisilist.”
   - **Interesting JavaScript functionality** (max 3pts)
     - The pulsing, blinking, and filling animations were applied to the heart icon to provide a joyful user experience when users add items to the wishlist.
     - A text notification pops up when adding items to the shopping cart.
     - The shopping cart page correctly calculates the total price based on the user’s selection (Pillow type and filler)
   - **Carousel for showcasing similar products** (max 5pts) – implemented on "Bed Pillow detail page"
     - The carousel can be manually operated using arrow icons on the side but automatically scrolls to the right.
   - **All the product pages are functional and all products can be added to the shopping cart with their options kept.** (max 2pts)