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PUI – HW 6

Reflection

Challenges + Bugs

While I initially considered using vanilla JavaScript for this assignment (as I am relatively familiar with it), I decided to use React instead so I would be able to start building a foundation in it. As this was my first time ever using React for a project, I did run into quite a few challenges. I think my biggest challenge was just learning the basics of React and how components and states work. I used the lab slides and articles I found online and asked questions to people in the class that were more familiar with React (although I still have a long way to go to feel more comfortable with it). Some bugs I encountered were just not updating the states properly and in the right places which I eventually was able to fix by following the logic. I also had a bug where one of my array elements was not showing up as an integer which I fixed by using the parseInt() function. I also had other minor bugs like not having enough brackets or forgetting semicolons which I fixed after seeing the error messages.

React Programming Concepts

1. **Components**
   One of the key concepts in React are components which are classes or functions that return an element of the interface. React components reduce redundancy and make it easier to edit a part of the website that appears or multiple pages (i.e. the navigation appears on the top of every page). The navigation component in the React website I created appears on every page and allows you to navigate to other pages (a router) and editing the component allows it to change on all the pages.

2. **Props**
   Using props lets you pass data from parent component to child. I passed props that included the list of cart items, the and the total items in the cart, etc. between my components (App.js to Pumpkinspice.js to Cart.js) which allowed me to access and display the information about the items that a potential customer selected.

3. **States**
   Updating states allow you to keep data between components consistent if there is a change in the data on one particular part of the site. In my website, I updated the state for list of items in the cart in the parent (App.js) whenever a new item was added so when I passed it to my cart page (child) it would be updated.

4. **Event Handlers**
   Event Handlers perform a function, etc. whenever they are triggered by a certain event (e.x. onClick() of a button). I used event handlers directly in my HTML to switch between the different images for the rolls depending on the button of the glaze that was clicked. I also used event handlers to call functions in order to update the quantity of an item or delete it whenever a user pressed on the respective buttons for these functions.

5. **Outputting Lists**
   In order to output lists in HTML, I used the map() function (which allows you to implement a function on every element in a list). This way, I was able to parse through my list and display attributes of each group of rolls from the items in cart list on the cart page.