COMP2013 – Project 1 – Week 6

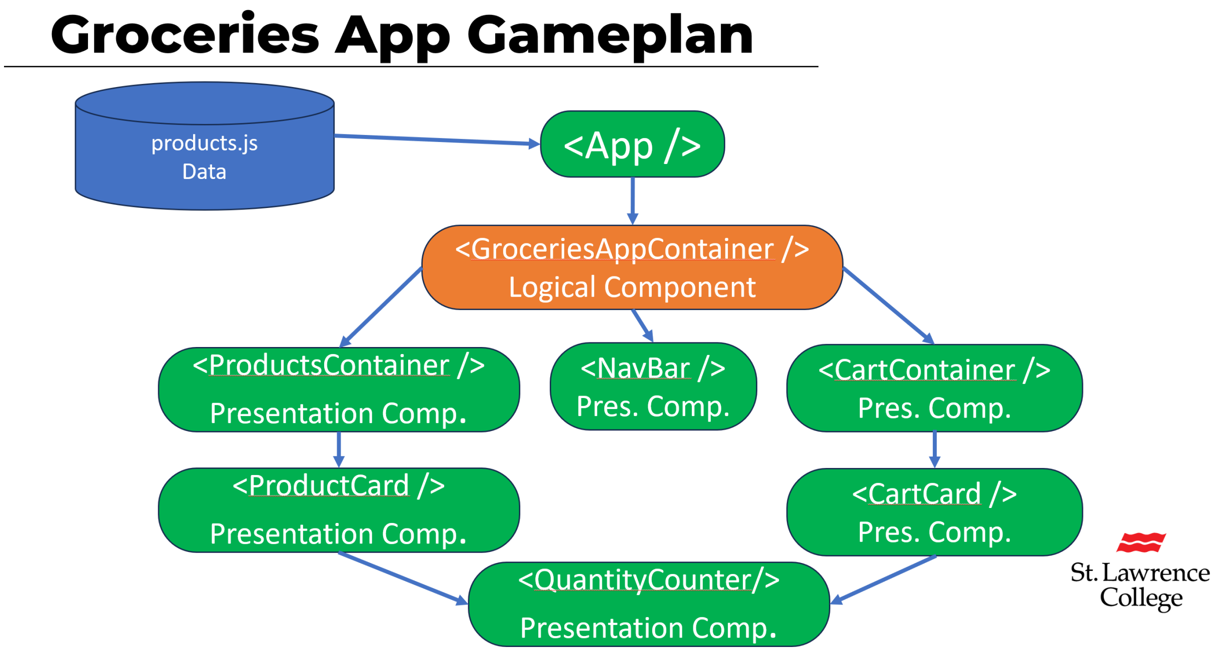
Due date: Friday, Oct. 17th. At 11:59 p.m.

Grade: 15%

Project Overview:

This project involves building a simple yet functional grocery shopping app that utilizes most of the core programming concepts covered. As part of the task, students will create an interactive app that allows users to select grocery items from an inventory, view their cart contents, and check out.

A summary of how the app flow works is as follows:


Groceries App Gameplan
products.js Data
<App />
<GroceriesAppContainer /> Logical Component
<ProductsContainer /> Presentation Comp.
<NavBar /> Pres. Comp.
<CartContainer /> Pres. Comp.
<ProductCard /> Presentation Comp.
<CartCard /> Pres. Comp.
<QuantityCounter/> Presentation Comp.
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The app consists of the following components.

1. **GroceriesAppContainer** is the primary logical component. This component will handle all the states and functions needed to get this app working. This component will import the data from products.js and pass it to the inventory component.
2. **NavBar** is the top presentation container that displays the app's title, a username greeter, and a cart icon that indicates whether the cart is full, shown by the red dot over the cart icon or empty.
3. **ProductsContainer** is a presentation component that renders all the product cards from the data passed from the parent component.
4. **ProductCard** is a presentation component that displays a single card with all the required elements. It also contains a **QuantityCounter** component, allowing the user to add multiple instances of the same product to the cart. The component has an "Add to Cart" button; when the user clicks on it, the product and its chosen quantities should be added to the cart. The **Cart** should be updated with the added amount if the product exists. For example, if the Coca-Cola product has two quantities in the cart and you add another Coca-Cola product with three quantities, the cart should update to five

on the Coca-Cola **CartCard**. If the user attempts to add a product with zero items, an alert should be displayed, prompting the user to enter a quantity before adding it to the cart.

5. **CartContainer** is a presentation component. This component will render the list of items chosen by the user. If the cart is empty, the component will show “No items in the cart.” Otherwise, it will display the number of items in the cart, with each item represented by a **CartCard** component. There are also two buttons at the end of the list:
    a. Empty the cart button. When clicked, the cart empties.
    b. Buy button that shows the total price, which has no functionality.
6. **CartCard** is a presentational component that displays an image of the product, the price, the quantity, and the sub-total of the products. It also features the QuantityCounter component, which enables users to edit the quantity of the same product they have added to the cart, as well as a 'Remove Item' button that removes the item from the cart.
7. **Quantity Counter** is a presentational component that displays the number of items for each product. It has a button to increase the amount and another to decrease the number of products. **Note:** Products cannot be set to a value of zero or less in the ProductCard, and they cannot be set to a value of 1 or less in the **CardCard.** Please reuse the same component for both **ProductCard** and **CartCard** components.

Please fork the repo linked on the assignment page, then clone the forked repo to your machine. The repo you will clone will contain the starter code, so there is no need to make a new Vite project. It will also contain the example’s style sheets if you want to use my styling.

Submission:

Each student should submit a GitHub link to the project on the submission page on Blackboard.

Grading rubric:

Key Concept	**Extensive Evidence**	**Convincing Evidence**	**Limited Evidence**	**No Evidence**
Functioning Code	The code functions with no errors and passes all test cases. (5%)	The code functions without errors, but not all test cases pass.. (3-4%)	The code functions with errors, and some of the tests pass (1 - 2%)	The code is not functional. (0%)
Program Logic and Correctness	The program's output is as expected. (5%)	The program's output produces minor differences from what was expected. (3-4%)	The program's output produces significant differences from what was expected. (1 - 2%)	The program does not output. (0%)
Commenting and annotations	The code includes extensive comments and annotations that describe the code's functions. (3%)	The code includes comments and annotations that describe the code's functions. (2%)	The code includes comments and annotations that describe the code's functions. (1%)	The code is without comments or annotations (0%)
Variable and function naming	The variables and functions' names are descriptive. (2%)	The variables and functions' naming is somewhat descriptive. (1%)		The variables and functions' naming is not descriptive (0%)

Challenge yourself: (No bonus marks)

If you have finished the project and want to challenge yourself with more tasks, you can try the following:

1. *Make the cart toggle its appearance when you press on the shopping cart icon. If the cart disappears, the products should still be visible in the app.*
2. *Refactor the logical handler so that if the user brings down the counter on the **CartCard** to zero, the product will be removed from the cart.*
3. *For task 2, if you want better usability, warn the user that the product will be removed and ask whether to accept it. If accepted, the product will be removed; otherwise, it will remain, and the counter will be reset to 1.*
4. *Make the checkout button usable—your choice of presentation of the next steps.*