

CMPS 356 – Fall 2022

Web Applications Design and Development

Lab 09

State with Next

Objective

1. Application state, reduction, and contexts in Next

Prerequisites

1. React: <https://reactjs.org/docs/getting-started.html>
2. Next: <https://nextjs.org/docs>
3. Faker: <https://fakerjs.dev>

1. State Management with Next

1. Create a new directory 01-cart-context and a Next application under it.
2. Install and use MUI for your user interface components: `npm install @mui/material @mui/icons-material @emotion/react @emotion/styled @emotion/server`.
3. Install and use Faker to create a list of products: `npm install @faker-js/faker`. Each product has at least a name, an image, a description, and a price.
4. Display the list of products using cards in a responsive grid.
5. Update the product card with actions to add and remove that product from the cart. The card should display the quantity currently in the cart for a given product.
6. Lift the state up to the application level to store the list of items currently in the cart. Generate and store your products at that level as well.
7. Create three additional pages with additional product categories and use a navigation bar to link to the different pages.
8. Display the total number of items in the cart and their total cost in the navigation bar.
9. Allow the user the click on the cart icon to display a dialog/menu with detailed information about the cart items.
10. Create a page with a detailed view of the cart that allows the user to update the quantities of the items and remove them.
11. Use a reducer hook to manage updates to the application state.
12. Use a context hook to store the list of available products and the ones currently in the cart.