REACT – Ocean Cleanup Operations Tracking Tool – Lorena Spallino

A description of the site

The site that I have decided to make to showcase my knowledge of React for this portfolio is a personal Ocean Cleanup tracker tool. The way that it works is that a user can access the site (after they have been involved in some sort of Ocean Cleanup effort), input their name so that the site can welcome them. And finally, keep track of the number of items they have cleaned from the ocean or beach. The site offers four different categories of litter where the user can update the amount of this litter they have cleaned during their most recent cleanup effort. Additionally, the site offers an area where the user can input and display comment or notes of their recent efforts.

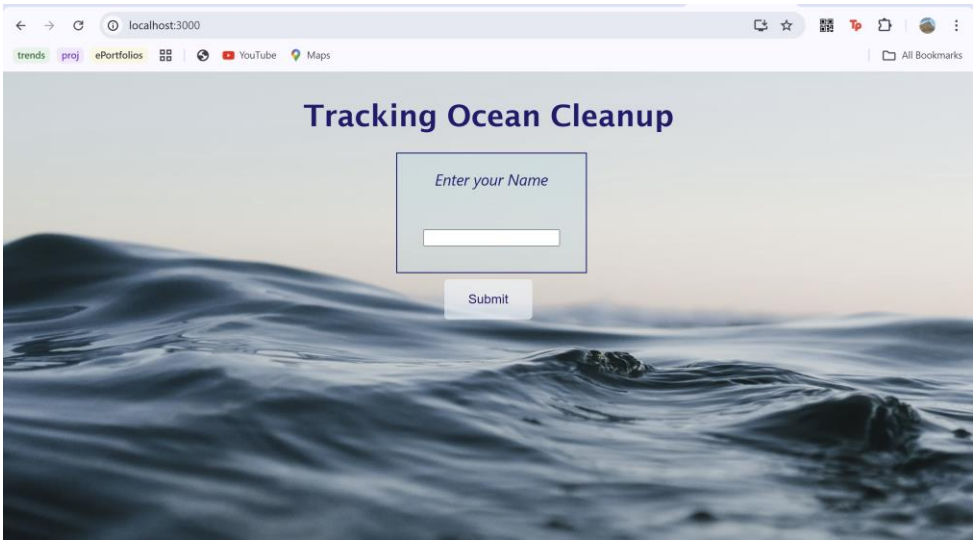
The web technologies from above that you used and why.

I mainly used JavaScript for this portfolio, leveraging React as one of its libraries. React has so many advantages, being that it can make for a better, more dynamic UI, which improves the user experience. React, being a component based, flexible powerful tool, made the development of this site easier, more user friendly, and helped me to advance my knowledge and skills, not only with this new library, but also with JavaScript. Additionally, I used CSS for the looks of the elements on my site, and a simple html page to render the site.

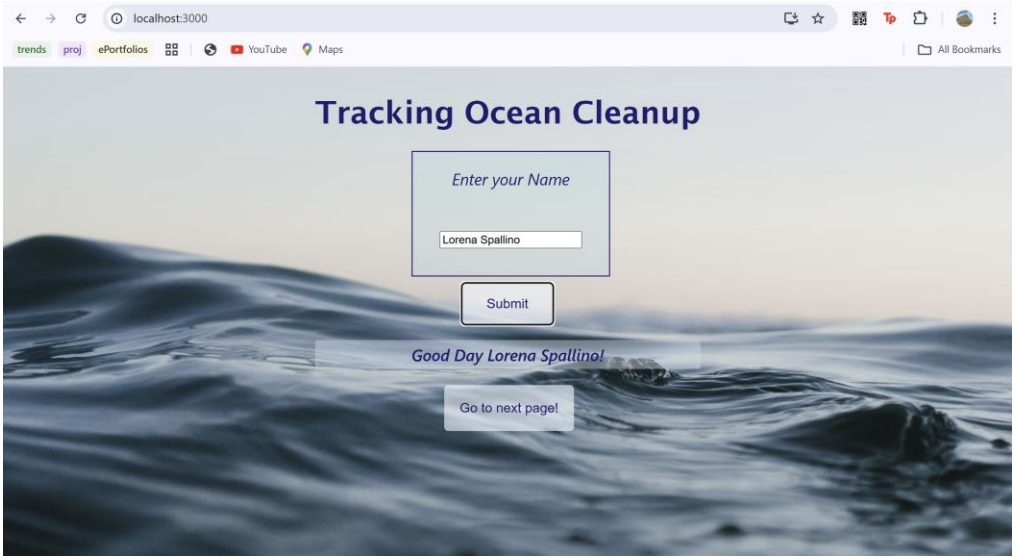
Screenshots of your website.

The following screenshots show the look, and functionality of my site:

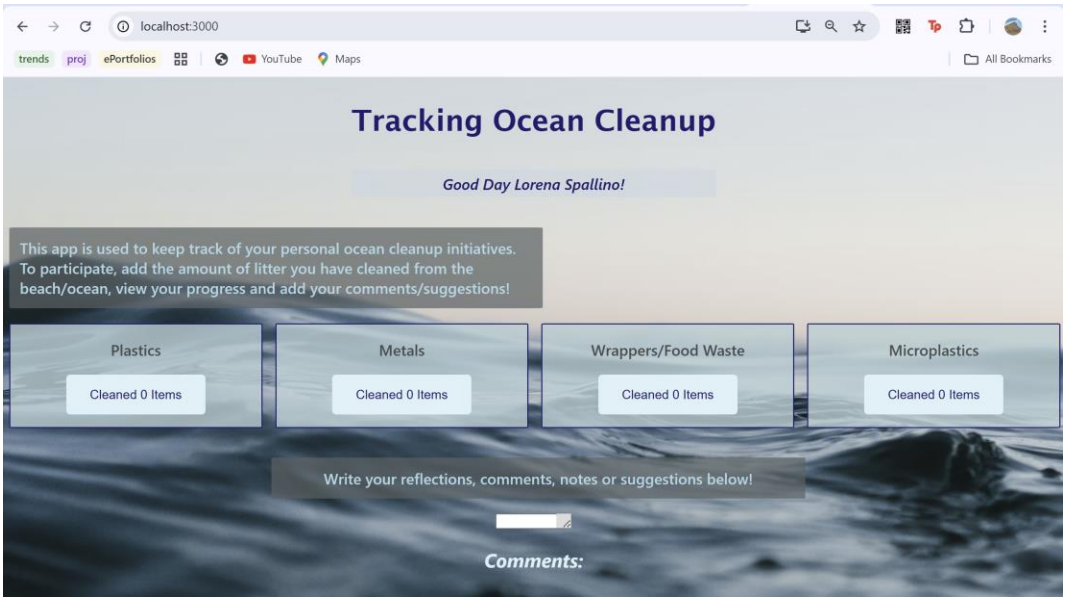
Landing Page: Upon launch, or landing on the html page, the user will see a simple welcome message, as well as a small form where they are prompted to input their name. This is shown below:



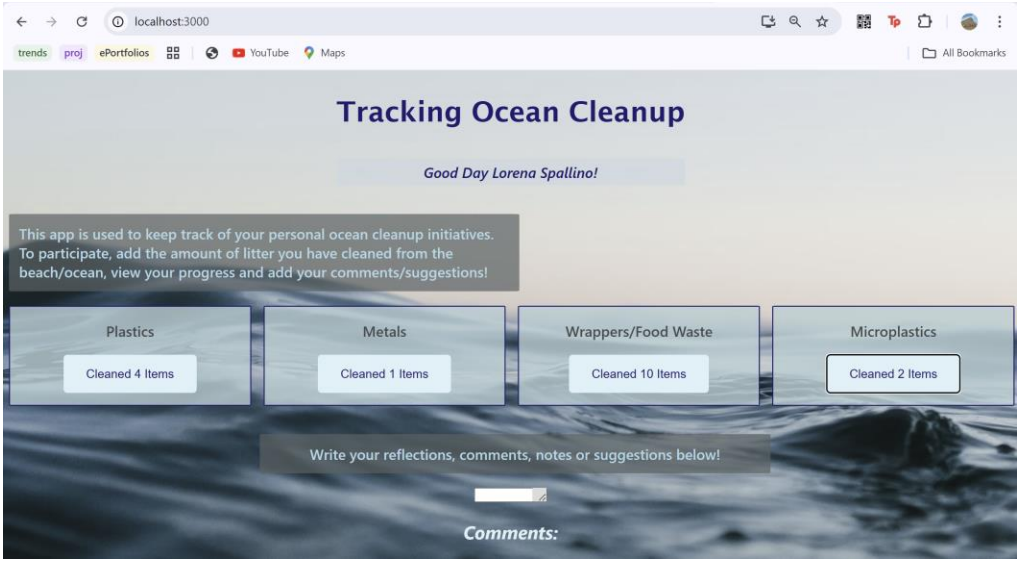
Upon entering their name, and clicking the enter button, React takes the input as a prop to a welcome function, which renders a new look to the page (Welcomes the user with their name, and displays another button to progress to the next part of the application.



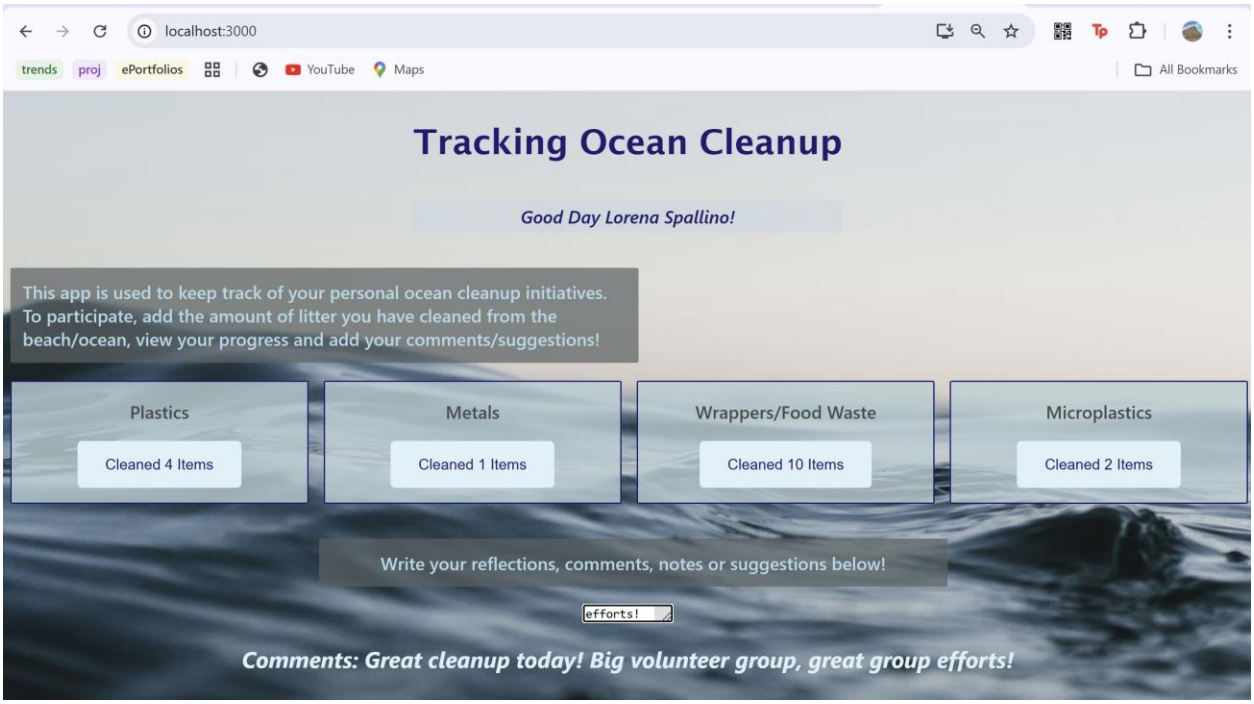
Once the user clicks ‘Go to next page!’ React renders a completely different page. The header and the form are now gone, and the tracking tool is displayed:



The user can now interact with the site by adding the number of plastics/metals/wrappers/microplastics they have cleaned on their most recent cleanup effort, as well as add any comments or notes below. After interacting with the site, it may look like the screenshot below:



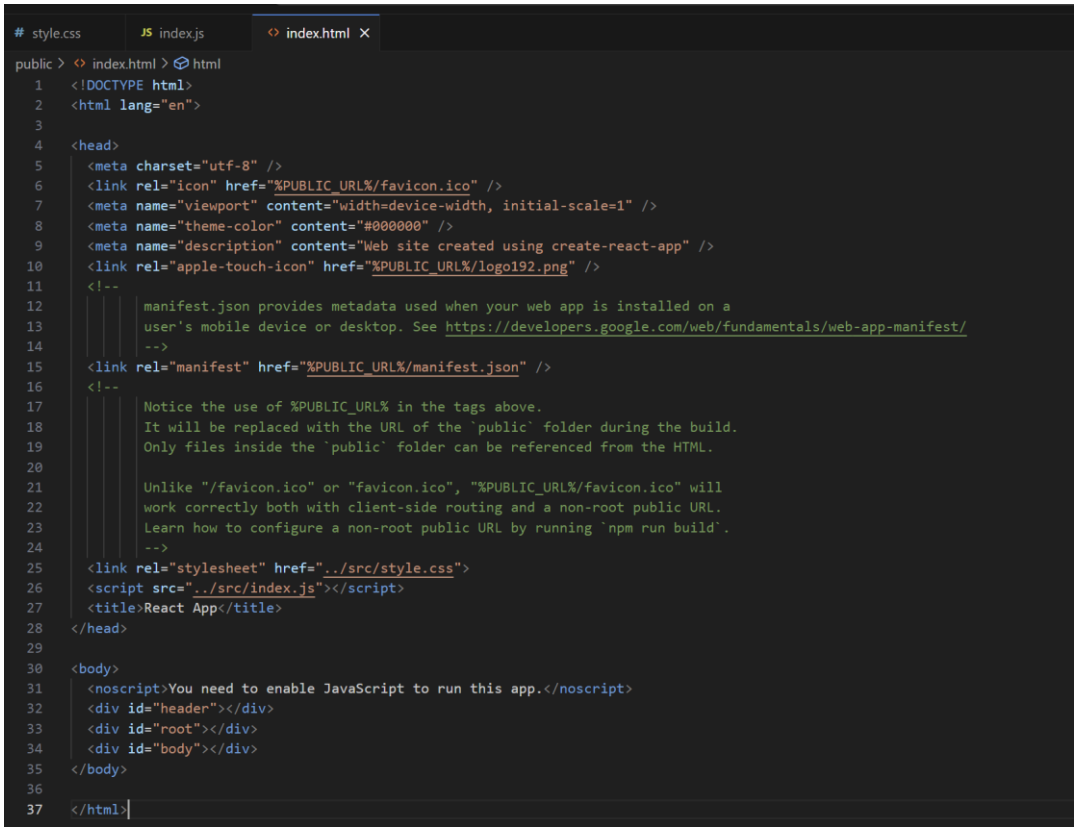
Evidently by clicking the buttons they can count/add the number of plastics(etc) that they have cleaned, and write in their comments in the textarea element, which is displayed in a more aesthetic way directly underneath.



Evidently, this site uses functions which take user inputs as ‘props’ to make the site more dynamic, as well as various react functionalities, and UseState in various different ways.

Source Code Screenshots:

Index.html auto formatted using the following link: *https://www.freeformatter.com/html-formatter.html#before-output*



Index.js – all react components in this file (Auto formatted using this link:

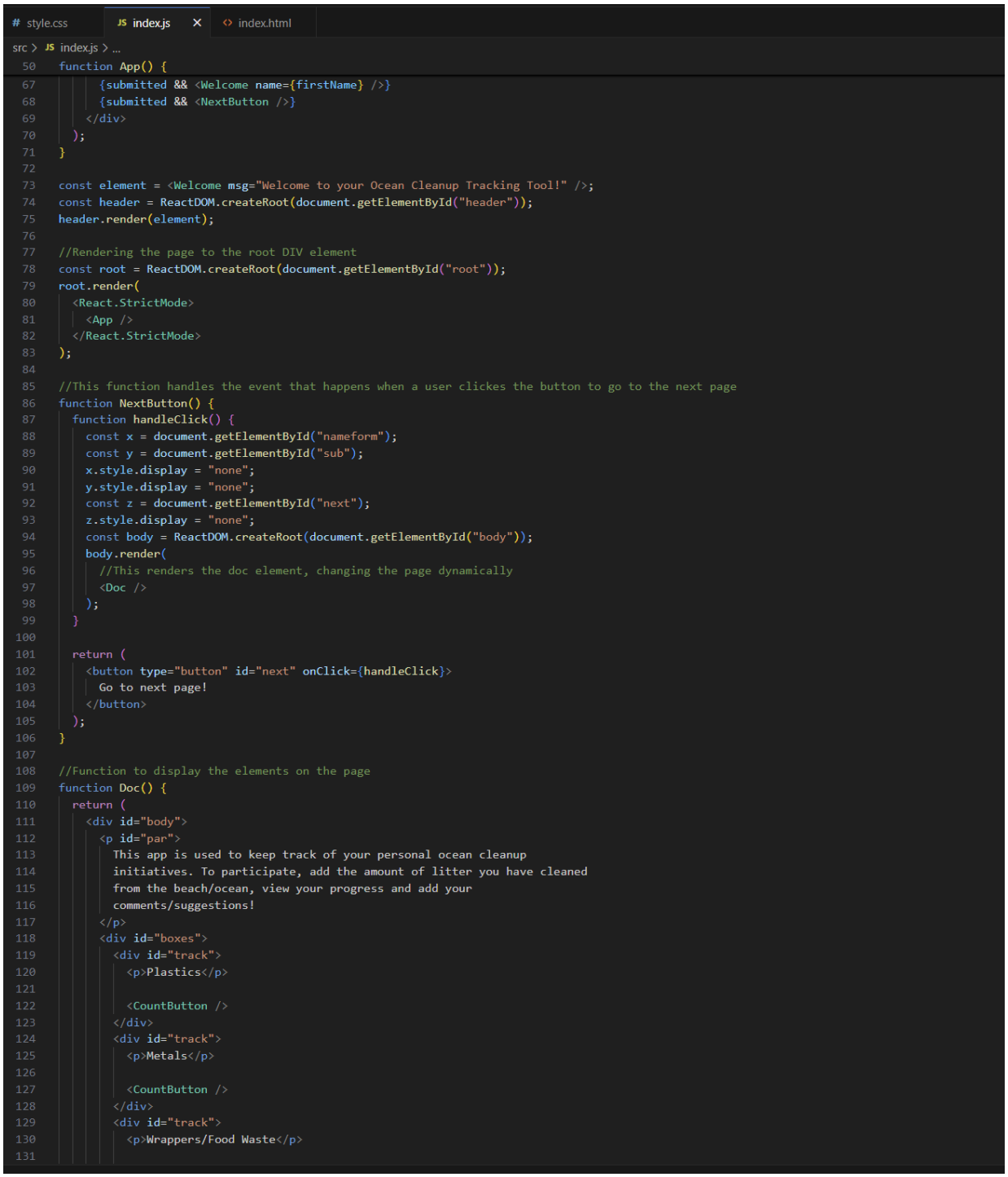
https://codebeautify.org/react-formatter#google_vignette)

style.css | index.js | index.html

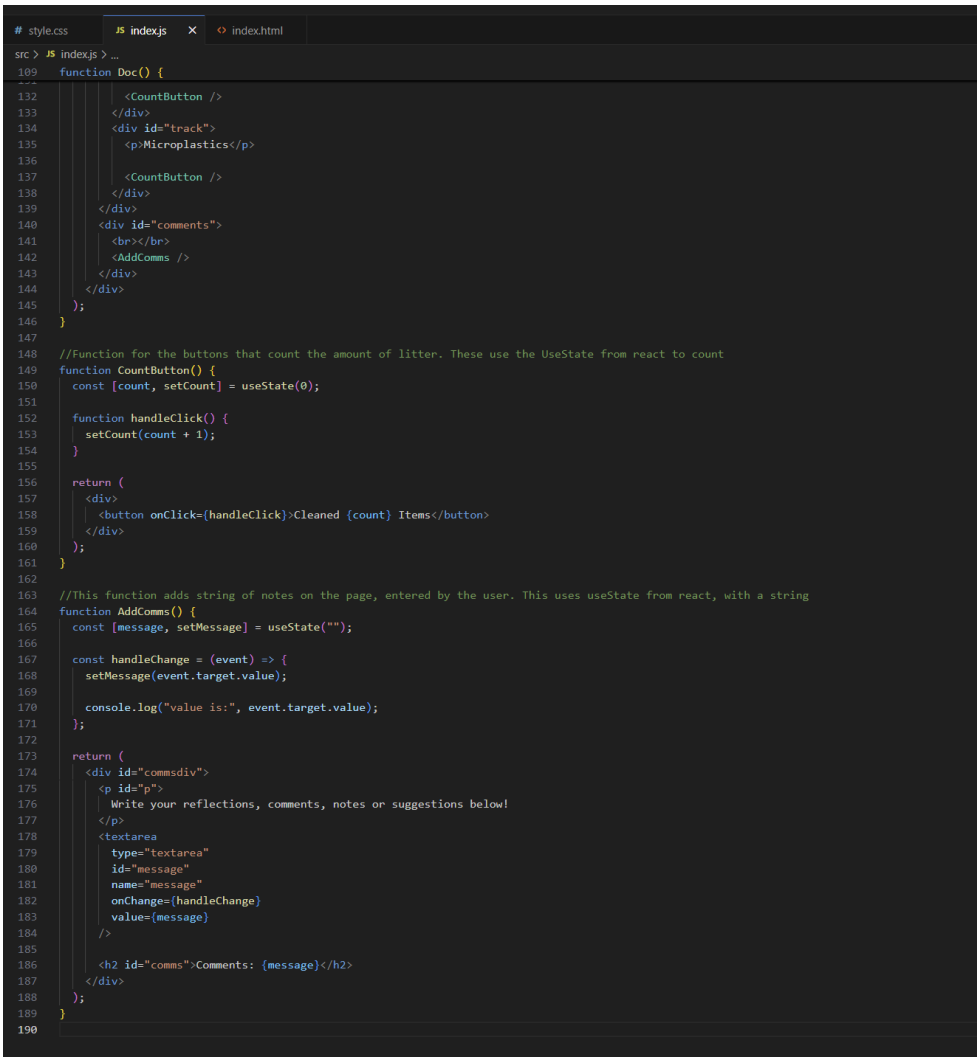
src > index.js > ...

```
import React from "react";
import ReactDOM from "react-dom/client";
import { useState } from "react";
import "./style.css";

//Function to record the user's name - takes name as a 'prop' and returns it
function Welcome({ name }) {
  return <h3>Good Day {name}!</h3>;
}

//Function to return the header for the app
function Header() {
  return (
    <header className="App-header">
      <h1>Tracking Ocean Cleanup</h1>
    </header>
  );
}

//This function to gather the input from the user and handles it on change This function uses handle, and setName as props
function UserInput({ handle, setName }) {
  return (
    <div>
      <form onSubmit={handle} id="nameform">
        <p>Enter your Name</p>
        <br />
        <input
          type="text"
          id="name"
          onChange={(e) => setName(e.target.value)}
        />
      </form>
    </div>
  );
}

function NameButton() {
  return (
    <div>
      <button type="submit" form="nameform" id="sub">
        Submit
      </button>
      <br></br>
      <br></br>
    </div>
  );
}

// Function to render the app This includes useState function with a string for the users name
function App() {
  const [firstName, setFirstName] = useState("");
  const [submitted, setSubmitted] = useState(false);
  const head = document.getElementById("header");
  head.style.display = "none";

  const handleSubmit = (e) => {
    e.preventDefault();
    setSubmitted(true);
  };

  return (
    <div className="App">
      <Header name={firstName} />
      {/* Passing setFirstName and handleSubmit function inside UserInput component */}
      <UserInput handle={handleSubmit} setName={setFirstName} />
      <NameButton />
```

Index.js continued:



Index.js continued:



What you want to accomplish with the site development why you chose this, and how it is supposed to work

The task I wanted to accomplish with this website was for individuals to keep track of their personal ocean cleanup operations. I chose to make this site because, as an environmentalist, I care deeply about the environment, and one of the biggest threats to the environment right now is litter in and around the oceans. Because the oceans are one of the most important aspects to the environment, regulating weather, sustaining marine life, and covering over 70% of the earth's surface, litter in the ocean is

detrimental to our environment. It causes increased global warming, climate change, and endangers marine life. Therefore, I wanted to use this opportunity to create a useful tool that can help individuals keep track and manage their individual ocean cleanup operations. This site is supposed to work by allowing the user to add their name into the initial form, which will then dynamically welcome the user when the body renders with use of UseState and props in React. Then they can increment the amount of litter they have cleaned from the respective categories on the site. They can also add helpful notes or comments at the bottom to better manage their efforts all made possible through the UseState and various methods of React.

Short descriptions of the struggles you encountered.

- Configuring a React Project:
  - Because I had never used react, and never even learned about it before this class, configuring the project posed a big challenge for me. I didn't know where to start, or how to include it at all. At first, I simply created a simple website using HTML, JavaScript and CSS, and tried to include react within the JS file. After running it I got a few errors in my console, and nothing rendered properly. I was not sure what to do, so I did some research. I watched some videos for general information and researched the issues I was having. I re-read the modules, and finally figured out that I needed to use the terminal to create a React project and run it!
- Using Props:
  - I was very unfamiliar with this concept, and did not know how to include them in my project. I needed to conduct supplemental research and was able to

understand the concept and include a simple application. This no doubt adds to the application, ensuring that it is more dynamic, and personal for each user.

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