React Router Patterns

Part 1: React Router Dog Finder

Build an app that routes to different dogs and displays information on that dog when you're at that route.

The routes should look like this:

- */dogs* is the homepage and shows all three dogs
- Clicking on a dog from the homepage takes you to that dog's route. For example, clicking on Whiskey will take you to */dogs/whiskey*.
- every other endpoint not listed should redirect you to */dogs*.

Download dog pictures

Recommended Structure

You can preload the *<App />* component with the following `defaultProps` for convenience:

```
App.defaultProps = {
  dogs: [
    {
      name: "Whiskey",
      age: 5,
      src: whiskey,
      facts: [
        "Whiskey loves eating popcorn.",
        "Whiskey is a terrible guard dog.",
        "Whiskey wants to cuddle with you!"
      ]
    },
    {
      name: "Duke",
      age: 3,
      src: duke,
      facts: [
        "Duke believes that ball is life.",
        "Duke likes snow.",
        "Duke enjoys pawing other dogs."
      ]
    },
    {
      name: "Perry",
      age: 4,
      src: perry,
      facts: [
        "Perry loves all humans.",
        "Perry demolishes all snacks.",
        "Perry hates the rain."
      ]
    },
    {
      name: "Tubby",
      age: 4,
      src: tubby,
      facts: [
        "Tubby is really stupid.",
        "Tubby does not like walks.",
        "Angelina used to hate Tubby, but claims not to anymore."
      ]
    }
  ]
}
```

The *<App />* should render:

- a *<Nav />* component with the dogs' names passed as props
- a *<Switch>* with your *<Route />* declarations

Here is an Example Snippet from the `render` method of *<App />* To Get You Started:

```
return (
  <Switch>
    <Route exact path="/dogs" >
      <DogList /> // what props will this need?
    </Route>
    <Route path="/dogs/:name" >
      <DogDetails /> // what props will this need?
    </Route>
    <Redirect to="/dogs" />
  </Switch>
);
```

In this example:

- *<DogList />* takes all the dog info from the props of *<App />*
- *<DogDetails />* shows all of the info about a single dog
- In *<DogDetails />*, how will you derive the current dog, e.g. `whiskey`?
- Bonus: is there a way to get the current dog *before* you render the component, passing *dog* instead of the entire list of dog data?

Part 2: React Router Color Factory

The goal of this exercise will be to use React Router to build an app that lets you view colors and add new colors.

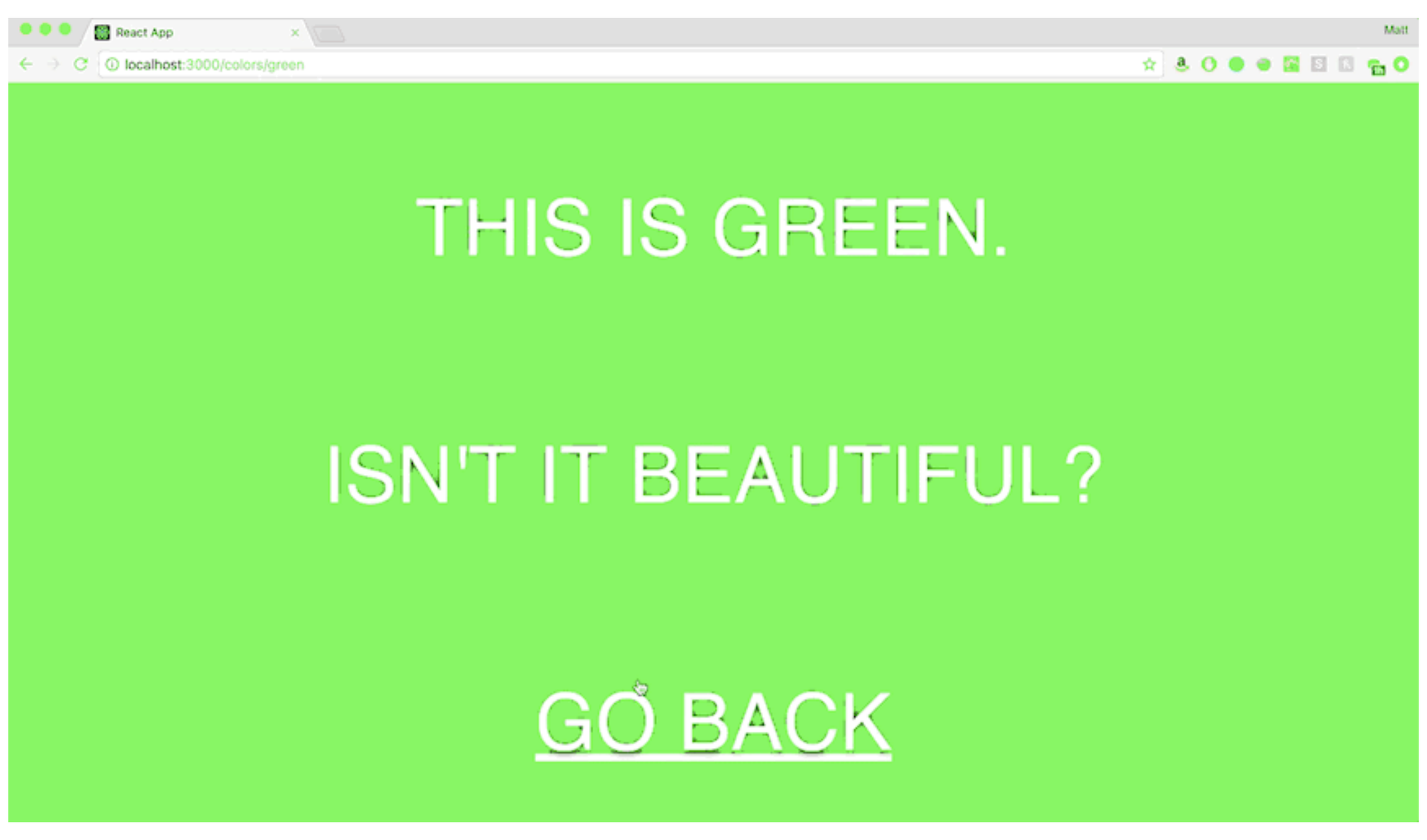
User Stories

1. As a user, I can go to */colors* to see a list of all available colors.
2. As a user, I can click on one of the colors in my colors list and get taken to a page where I can see that color in all its glory.

   (The route here should be */colors/:color*)
3. As a user, I can click on a button to show a form that will let me add a new color.

   Note that you can give an *input* a type of *color* if you're trying to select a color. (The route here should be */colors/new*)
4. As a user, when I submit my new color form, I am redirected to the colors index, and my new color appears at the top.
5. As a user, if I try to navigate to a color page that does not exist (eg, */colors/blargh*), I am redirected to the colors index page.
6. As a user, if I try to navigate to an invalid url (eg, */this-is-not-valid*), I am redirected to the colors index page.

Here's an idea of what your app could look like:



Further Study

1. Write tests for these applications!
2. Persist your colors data in *localStorage*. (You should use useEffect for this).
3. Add nice styling to your apps.

Further Study: React Router Calculator

It's time to build another routing-based calculator, but this time with React Router!

Build a calculator that supports routes like:

/add/1/2
: should render a component that displays 3.

/subtract/3/2
: should render a component that displays 1.

/multiply/6/4
: should render a component that displays 24.

/divide/20/5
: should render a component that displays 4.

As a bonus, try to do this without using a different component for each of the four math operations!

Good luck!

Solution

View our Solution