

JavaScript Functional Programming

Map	<code>const modifiedNumbers = numbers.map((number) => { return number*2 })</code>
Filter	<code>let berryFruits = fruits.filter(fruit => { return fruit.includes("berries") })</code>
Reduce	<code>let sum = numbers.reduce((acc, now) => { console.log(previous is \${acc}, now is \${now}); return acc + now; // return acc+now; })</code>
Find	<code>let firstBerry = fruits.find(fruit => fruit.includes("berries"))</code>
FindIndex	<code>let firstBerryIndex = fruits.findIndex(fruit => fruit.includes("berries"))</code>
Some	<code>let someFruite5 = fruits.some(fruit => fruit.length >= 5)</code>
Every	<code>let everyFruite5 = fruits.every(fruit => fruit.length >= 5)</code>

Week3 React_Introduction_Vite_Terminal

1. create	<code>npm create vite@latest my-app -- --template react</code>
2. move directory	<code>cd my-app</code>
3. install	<code>npm install</code>
4. run	<code>npm run dev</code>
5. install bootstrap	<code>npm i bootstrap</code>
6. import bootstrap	<code>main.jsx > import 'bootstrap/dist/css/bootstrap.css';</code>
7-1. adding routing	<code>npm i react-router-dom</code>
7-2. import routing	<code>main.jsx > import {BrowserRouter as Router} from "react-router-dom"</code>

Week4 React_Components_State_EventHandling

```
import Book from "../book";
const BooksList = ({books=[], onDelete=f=>f}) => {
  if(books.length===0) return <h2>Currently there are no books</h2>
  return (<section>
```

Week4 React_Components_State_EventHandling (cont)

```
> <h6>Showing {books.length} books</h6>
<table className="table">
  <thead>
    <tr>
      <th>Id</th>
      <th>Title</th>
      <th>Category</th>
      <th>Author</th>
      <th>Number in Stock</th>
      <th>Price</th>
      <th>Year</th>
      <th>Liked</th>
      <th>Action(s)</th>
    </tr>
  </thead>
  <tbody>
    {books.map(book=><Book
      key={book._id}
      book={book}
      onDelete={onDelete}
    />)}
  </tbody>
</table>
</section> );
}

export default BooksList;
```

Week5 Rendering Images

Rendering Images - assets (1)	<code>const images = import.meta.glob("../assets/images/*.{jpg,png,svg}", {eager: true});</code>
Rendering Images - assets (2)	<code>const imageUrl = Object.values(images).map((img) => img.default);</code>
Rendering Images - public	<code></code>

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Week5 React_Hooks_StateInTrees_Forms_Code

```
//sfc
import { useState } from "react";
const AddColor = ({onAdd, deleteColor}) => {
  const [title, setTitle] = useState("");
  const [color, setColor] = useState("#000000");
  const submitColor = (event) => {
    event.preventDefault();
    onAdd(title, color);
    setTitle("");
    setColor("#000000");
  }
  return (<
    <h4>You can add a new color here.</h4>
    <form onSubmit={submitColor}>
      <input type="text"
        value={title}
        required
        placeholder="color title"
        onChange={event => setTitle(event.target.value)}
      />
      <input type="color"
        value={color}
        onChange={event => setColor(event.target.value)}
        required />
      <button>Add Color</button>
    </form>
  </>);
}

export default AddColor;
```

Week6 React Routers - Define Router

```
// main.jsx
import {BrowserRouter as Router} from "react-router-dom"
createRoot(document.getElementById('root')).render(
  <StrictMode>
    <Router>
      <App />
    </Router>
  </StrictMode>
);
```

Week6 React Routers - Define Router (cont)

```
> </Router>
  </StrictMode>,
  )
```

Week6 React Routers - 404

```
import {useLocation} from "react-router-dom"
const Whoops404 = () => {
  const location = useLocation();
  return (<div>
    <h1>Page not Found at {location.pathname}</h1>
  </div>);
}

export default Whoops404;
```

Week5 React_Hooks_StateInTrees_Forms_Code

```
function App() {
  const [colors, setColors] = useState(colorData)
  //function to remove a color
  const deleteColor = (id) => {
    const updatedColors = colors.filter(c => c.id !== id);
    setColors(updatedColors);
  }
  //function to change rating
  const rateColor = (rating, id) => {
    const updatedColors = colors.map(c => {
      color: c.id === id ? {...c, rating: rating} : c;
      setColors(updatedColors);
    });
  }
  //function to add new Color
  const addColor = (title, color) => {
    const newColors = [...colors,
      {id: v4(),
        title, color, rating: 0, img: "yellow.jpg"}
    ];
    setColors(newColors);
  }
}
```

Week5 React_Hooks_StateInTrees_Forms_Code (cont)

```
> return (
  <div>
    <Header title="This is my Color List."/>
    <AddColor onAdd = {addColor}/>
    <ColorList
      colors={colors}
      onDelete = {deleteColor}
      onRate = {rateColor}
    />
    <Footer/>
  </div>
)
}
export default App
```

Week6 React Routers - Adding Routing

Week6 React Routers - Adding Routing (cont)

```
>      {/ for paths which do not match the paths given above}
    <Route path="" element={<Whoops404 />} />
    {/ Redirecting}
    <Route path="/services" element={<Navigate to="/ab-
out/services" />} />
  </Routes>
</div>
);
}
export default App;
```

Week6 React Routers - Placeholder Components

```
import { Outlet, Link, useParams, useLocation }
from "react-router-dom";
import queryString from "query-string";
export const Home = () => {
  return (
    <div>
      <h1>Shopping App</h1>
    </div>
  );
};
export const About = () => {
  return (
    <div>
      <h1>About</h1>
      <Outlet/>
    </div>
  );
};
export const EventDetails = ()=>{
  const {month, year} = useParams();
  const location = useLocation();
  const obj = queryString.parse(location.search)
  return <div>
    <h6>Event Details: Month {month} and Year
    {year}</h6>
  </div>
}
export const Products = () => {
```

```

import { Routes, Route, Navigate, useNavigate }
from "react-router-dom";
function App() {
  return (
    <div>
      <Navbar />
      <Routes>
        <Route path="/" "
element={ <Home /> } />
        <Route path="/" -
about" element={ <About /> }>
          nested routes /{/
            <Route
path="history " element={ <History /> } />
            <Route
path="services" element={ <Services /> } />
            <Route
path="locations" element={ <Locations /> } />
          </Route>
          Multiple route/path parameters
          -- REQUIRED /}
          <Route path="/ events /:m -
ont h/: year" element={ <Event Details /> } />
          /}
          <Route path="/" -
events " element={ <Events /> } />
          Multiple route/path parameters
          -- OPTIONAL /}
          <Route path="/" -
events /:month? :year? " element={ <Event -
Details /> } />
          <Route path="/" -
products" element={ <Products /> } />
          Route/Path Parameters /}
          <Route path="/" -
products/:id " element={ <ProductDetails /> }
/} />

```

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Week6 React Routers - Placeholder Components (cont)

```
> return (  
  <div>  
    <h1>Products</h1>  
    <ul style={{fontSize:"2em", listStyleType:"none"}}>  
      <li><Link to="1">Product 1</Link></li>  
      <li><Link to="2">Product 2</Link></li>  
      <li><Link to="3">Product 3</Link></li>  
    </ul>  
  </div>  
)  
};  
export const ProductDetails = () => {  
  const products = [  
    { id: 1, name: "Laptop", desc: "About Laptops..." },  
    { id: 2, name: "Notepad", desc: "About Notepads..." },  
    { id: 3, name: "Smart Phone", desc: "About Smart Phones..." },  
  ];  
  let { id } = useParams();  
  id = parseInt(id);  
  const product = products.find((prod) => prod.id === id);  
  return (  
    <>  
      <h2>Product Details</h2>  
      <p>Name: {product.name}</p>  
      <p>Description: {product.desc}</p>  
    </>  
  );  
};
```

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