Week 3: Advanced JavaScript and Introduction to React

Day 15: Introduction to React

- **Topics Covered: Setting up a React app using create-react-app.**

- **What I Learned: I learned the basics of React and how to set up a React application using create-react-app. I also learned about components, JSX syntax, and how React manages the UI.**

- **Challenges: Understanding JSX syntax was initially confusing because it looks like HTML but has some differences. I had to read through the documentation to understand it better.**

Day 16: React Components and Props

- **Topics Covered: Functional components, props, and rendering dynamic content.**

- **What I Learned: I created simple React components and passed data between them using props. I also learned about the concept of "component composition."**

- **Challenges: Understanding how data flows between components was tricky, but I started to understand it by building small examples.**

Day 17: State and Events in React

- **Topics Covered: State management with useState and handling events.**

- **What I Learned: I learned how to use the useState hook to manage state in functional components and how to handle events like button clicks or form submissions.**

- **Challenges: I found it difficult to understand how state updates work asynchronously. It took me a while to figure out the timing of state changes.**

Day 18: React Lifecycle and Effects

- **Topics Covered: Using the useEffect hook for side effects, lifecycle methods in class components.**

- **What I Learned: I learned how to use useEffect to handle side effects like fetching data, updating the DOM, and subscribing to external resources.**

- **Challenges: Understanding when and how useEffect runs was tricky. I had to experiment with different use cases to get a solid understanding.**

Day 19: React Router

- **Topics Covered: React Router for adding navigation and routing in a React app.**

- **What I Learned: I added navigation to my React app using React Router. I learned how to create different pages and link them together without reloading the page.**

- **Challenges: Setting up routing and understanding the concept of dynamic routes was challenging at first.**

Day 20: React Forms

- **Topics Covered: Managing form inputs, controlled components, and form submission in React.**

- **What I Learned: I learned how to create forms in React and manage input states. I also worked on handling form submission with React's state management.**

- **Challenges: Working with controlled components in React took me some time to get used to, but I'm now more comfortable with it.**

Day 21: Review and Practice

- **What I Learned: I spent the day reviewing React concepts and building a small React app (like a simple to-do list or a form submission app).**

- **Challenges: I still struggle with understanding some advanced React concepts, but I plan to revisit them in the next weeks.**