**Lesson 1 Summary: Introduction to Function Components**

* Props principles include reusability, unidirectional data flow, customization, and composition.
* You can use the "useState" hook with an event to control a child component.
* You use component composition to combine smaller components to create a complex UI.
* Principles of component composition include abstraction, reusability, hierarchy, props and children, and higher-order components.
* State management allows you to manage data that can change over time within a component.
* The useState hook enables function components to manage the component's state locally.
* You can use this syntax when using the useState hook:
  + Call the "useState" function and pass in the initial state as a parameter.
  + Assign the return value to a const array variable using a destructured array.
  + The array has two values: the state name and the state name prefixed with the keyword "set."
* The mounting phase initializes the component, sets up the initial state, and performs side effects.
* In the updating phase, React re-invokes the function body and re-evaluates JSX.
* In the unmounting phase, React executes cleanup operations when removing a component from the DOM.

**Lesson 2 Summary: Array in React and DOM Manipulation**

Congratulations! You have completed this lesson. At this point in the course, you know that:

* You use the array data structures often to store groups of items in a single variable.
* Two important array methods include:
  + map(), which makes it easier to make new arrays by applying a function to each element
  + forEach(), which runs a function on each array element without creating a new array
* The DOM allows access to and dynamically manipulates web documents’ content, structure, and style.
* React's virtual DOM abstracts the actual DOM implemented in memory and keeps the virtual DOM in sync with the real DOM by React’s reconciliation process.
* React’s virtual DOM updates only the necessary parts of the DOM, improving the application's performance, especially in scenarios where only specific components or elements need to be updated.