

## Chapter 7 Study Guide

### JSX / PROPS

ReactDOM, Component Declarations, Arrow Functions, Ev

## Objectives:

- Explain the role of ReactDOM in rendering React components within the HTML structure.
- Describe how React initializes an application using `createRoot()` and integrates with the browser.
- Understand the purpose of `<StrictMode>` for identifying potential issues during development.
- Define JSX and explain its benefits for creating dynamic UIs.
- Write function components using arrow function syntax for cleaner code.
- Attach event handlers properly in JSX by passing function references and accessing props.

## ReactDOM

ReactDOM is a package that provides DOM-specific methods. It is used to render React components.

```
import ReactDOM from 'react-dom';
```

```
ReactDOM.render(<App />, document.getElementById('root'));
```

## Component Declarations

Components are the building blocks of a React application. They can be declared as functions or class components.

```
function Welcome(props) {  
  return <h1>Hello, {props.name}</h1>;  
}
```

## Arrow Functions

Arrow functions provide a concise syntax for writing functions. They are often used in React for event

```
const Welcome = (props) => {  
  return <h1>Hello, {props.name}</h1>;  
};
```

## Event Handlers

Event handlers are functions that handle user interactions. They can be added to elements using J

```
function handleClick() {
```

```
    alert('Button clicked!');
```

```
}
```

```
<button onClick={handleClick}>Click me</button>
```

## Props

Props are inputs to components. They allow data to be passed from parent to child components. E

```
function Welcome(props) {  
  return <h1>Hello, {props.name}</h1>;  
}  
<Welcome name="Sara" />
```

## useState

useState is a Hook that allows you to add state to functional components. It returns an array with th

```
const [count, setCount] = useState(0);
```

```
<button onClick={() => setCount(count + 1)}>Click me</button>
```



## Practice Questions and Answers

### 1. ReactDOM

Q: What is the purpose of ReactDOM in a React application?

A: ReactDOM provides DOM-specific methods to render React components into the DOM.

### 2. Component Declarations

Q: How can you declare a component in React?

A: Components can be declared as functions or classes. Function components are commonly used with

### 3. Arrow Functions

Q: Why are arrow functions often used in React?

A: Arrow functions provide concise syntax and automatically bind 'this', making them ideal for event han

### 4. Event Handlers

Q: How do you attach an event handler to a button in JSX?

A: Use the onClick attribute with a function reference, e.g., <button onClick={handleClick}>Click me</b

### 5. Props

Q: What are props in React?

A: Props are inputs to components that allow data to be passed from parent to child components.

### 6. useState

Q: What does the useState hook do?

A: useState allows you to add state to functional components and provides a function to update that sta