

1. Creating Simple React Components

Summary:

React components are the building blocks of any React application. A simple component

Details:

Functional components are the most basic way to define a component in React. They

These components are reusable and can be nested inside other components to build

Code Example:

```
const Welcome = () => {  
  return <h1>Hello, world!</h1>;  
};
```

2. Using JSX to Embed JavaScript in HTML

Summary:

JSX allows you to write HTML-like syntax directly in JavaScript, and you can embed

Details:

JSX makes it easier to visualize the UI structure while keeping logic close. You

This allows dynamic rendering of content based on variables or state.

Code Example:

```
const Greeting = ({ name }) => {  
  return <h2>Hello, {name}!</h2>;  
};
```

3. Rendering a List of Items Using .map()

Summary:

To dynamically render multiple elements, you can use JavaScript's .map() function.

Details:

The .map() function iterates over an array and returns a new array of elements.

Each item should have a unique key prop to help React manage updates efficiently.

Code Example:

```
const ItemList = ({ items }) => {  
  return (  
    <ul>  
      {items.map((item, index) => <li key={index}>{item}</li>)}  
    </ul>  
  );  
};
```

4. Understanding Component Reuse (Instantiation)

Summary:

React components can be reused multiple times with different props.

Details:

Component reuse allows you to create modular and maintainable code. By passing

This is a key feature of React's declarative and component-based architecture.

Code Example:

```
<Greeting name="Gregory" />  
<Greeting name="Alex" />
```